

DEP Waste Site Cleanup Audit and Enforcement Update

January 1997

Audit Findings for November 96

BWSC completed 12 audits in November. Nine of those 12 audits did not require further field work. Three audits required further found field work including:

1. Various manufacturing activities have occurred at a site since the 1700's including: (a) use and storage of dyes, coal and petroleum, and (b) fabrication of plastics and molded foam. A tailrace discharged into the Neponset river until the 1980's. Cisterns handled sanitary waste. Areas of oily soil existed in a number of locations. The site lies within the Interim Wellhead Protection Area of an inactive municipal water supply well. BWSC found the Class B-2 RAO for the site violated the MCP since groundwater contamination exceeded GW-1 standards (a pump test failed to clearly establish a lack of a hydrogeological connection). BWSC identified numerous problems with exposure point calculations including: (a) modeling of potential contamination migration to the water supply well that was 18 times less conservative than an model previously approved by BWSC, (b) averaging of groundwater data between wells, (c) averaging in non-detects as zero for samples with very high minimum detection limits. BWSC required an audit follow-up plan to correct the violations and deficiencies. (Canton, 3- 0549, November 8, 1996).
2. An owner filed a waiver completion statement for a former auto dealership where TPH contamination in soils below the floor of the building exists at levels up to 41,000 ppm. The Statement concluded that the foreseeable use of the building for commercial or industrial purposes permitted a conclusion that a permanent solution had been achieved. Discussions between BWSC auditors and the current owner indicated that a day care center is a foreseeable use. BWSC found the Statement violated the MCP since a permanent solution had not been achieved. Also, the Statement had not sufficiently considered indoor air exposures to children. BWSC requested additional sampling and evaluation of indoor air exposures (Hanover, 4-0722, November 18, 1996).
3. A commercial bakery and warehouse occupy the location of a former coal gasification plant along the Mystic River. Groundwater testing indicated that cyanide and lead levels at the location exceed GW-3 standards in a well downgradient of a sump suspected to be the source area. BWSC found the Class B-1 RAO for the site violated the MCP since groundwater sampling had not been performed downgradient of the well where GW-3 standards had been exceeded. BWSC required an audit follow-up plan to correct the violations and deficiencies. (Everett, 3-11438, November 25, 1996).

Additional Audit Finding for June 96


1. A release from a fuel oil UST occurred at a hospital. BWSC found that the RAO for the release violated the MCP since soil contamination levels exceeded the Method 1 S-2. Also, an Activity and Use Limitation had not been filed although the remaining contamination exceeded S-1 cleanup levels. (Leominster, 2-10590, June 26, 1996).

VPH/TPH Proposal - Correction (John Fitzgerald, BWSC-NERO)

Last month's column reported that "the proposed Method 1 VPH/EPH standards set forth in the (Nov 1) draft may be used immediately". What is omitted is the fact that these PROPOSED method 1 standards may be only used immediately as METHOD 2 STANDARDS, pursuant to

40.0982(7). Until the proposed regulations are finalized, it is NOT possible to use these values as Method 1 standards.


Electronic Listing of Audit Findings Available

A [spreadsheet which lists all Notices of Audit Findings](#)  (120 KB) has been placed on the BWSC electronic bulletin board in a file called NOAF(underscore)TAB.ZIP in the BWSC/LSP section of the BBS. Information about RAO, site and source type may be helpful when looking for audits which address issues LSPs may be encountering when preparing LSP opinions.

Consent Orders

1. BWSC issued a \$15,000 penalty to a trucking firm who: (1) failed to tier classify three locations within applicable deadlines, (2) notify DEP of a release of diesel fuel and conducted and IRA without DEP approval and (3) had a pattern of other MCP violations. (Chicopee (RTN 1-11361), Pittsfield (RTN 1-10751), Stoughton (RTN 4- 11475), October 21, 1996).
2. BWSC issued a penalty of \$750 to the owner of a property at which a soil pile was repeatedly left uncovered. Children had been reported to be playing in the soil pile (Springfield, 1-1048, October 31, 1996).
3. BWSC issued a \$18,000 in penalties to the MBTA and two private companies for their failure to complete an approved IRA before completing the construction of railroad tracks across a site (Bridgewater, 4-1187, November 8, 1996).

Where To Next ?

- [List of all Notices of Audit Findings \(up to 10/96\)](#)  (120 KB)
- Go To [Last Month's](#) or [Next Month's](#) Audit and Enforcement Update
- Return to the [List of Audit and Enforcement Updates](#)
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- Go To [MADEP Home Page](#)

Last Updated: February 12, 1997

MADEP Contact:

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NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Abington	410247	Ryder Student	1421 Bedford Street	R. Varnum	RAO A-2	Commercial	Spill	10/8/96	Sep-96
Acton	200006	WR Grace	51 Independence Rd	G. Siegal	IRAC	Industrial	NAPL-Hexane	10/24/96	Sep-96
Acton	210609	Lawsbrook, Inc.	25 Lawsbrook Rd	210609	RAO A-2	Industrial	USTs	10/16/96	
Acton	200747	Mobil Oil	Main St	S. Vandersea	ram			12/14/94	
Allston	302332	M. Kim	Everett St	J. Jammallo	RAM Completion			5/4/95	Dec-96
Amesb	304855	CADO Fabrications	CADO Fabrications	G. Goguen	rao/lsp eval			3/3/95	Dec-96
Amesbury	313997	Eastern States Dist.	20 Cedar St.	J. Hardin	DPS	Industrial	Unknown	8/8/96	Oct-96
Amesbury	302184	Seignv Family Trust	Fmr Ford Garage	N/A	waiver cond			4/12/94	Oct-96
Andover	300208	Reichhold Chemicals	77 Lowell Junction Road	J. Rendal	NRS	Industrial	Landfill.	10/30/96	Oct-96
Andover	302525	M. Loughlin	Fmr Marique Farm	N/A	Waiver Completion			8/8/95	Sep-96
Andover	300813	Digital Equipment	Cooling Tower Area	N/A	waiver complt.			10/20/94	Sep-96
Andover	304177	Cvr Oil	Cvr Oil	N/A	waiver cond			9/7/94	Sep-96
Ashburnham	210981		14 Maple Ave		RAO			2/28/96	Sep-96
Ashland	301812	Pel's Sunoco	Pond St	N/A	IRA			4/24/95	
Attleboro	410675	DeBlois Oil Company	40 Water Street	R. Kowalski	RAO A-2	Commercial	AST	10/21/96	
Attleboro	410130	Texas Instruments	34 Forest Street, Bldg 4	A. Svnder	RAO B-1	Industrial	Ammonia	10/16/96	Nov-96
Attleboro	410636	Hellen Transportation	Route 295	S. Mieridichian	RAO A-2	Roadway	Spill	5/2/96	
Auburn	210890							7/26/96	
Auburn	200287	Sun Chemical	St. Mark St	J. Drobinski	RAO/LSP Eval			12/29/94	
Auburn	200272	Montrose Products	Sword St	M. Dickenson	rao			10/19/94	
Auburn	210005	Miland Kann	Kahn's Service Stn	P. Reiter	rao			9/21/94	
Avon	410381	G. H. Realty Trust	Bodwell Street	J. Kuker	NRS	Industrial	AST	12/28/95	
Baldwinville	210596	Seaman Paper Co.	Main Street	M. DeRosa	RAM	Commercial	UST	10/17/95	
Barnstable	410961	Town of Barnstable	114 Freezer Road	J. Salvetti	RAO A-2	Government	UST	10/24/96	
Barnstable	400825	Juniper Development	Cotuit Landing	N/A	Waiver Completion	Commercial	Septic/PCE	3/11/96	Dec-96
Barnstable	410059	West Lynn creamery	Bodick Road	T. Kaegael	RAO A-2	Commercial	Spill	9/27/95	Dec-96
Barnstable	410281	S. McGovern	Pine Lane	T. Lamminen	ram			12/7/94	
Barre	210298	White Valley Service	Worcester Road	T. Alving	RAO B1			8/7/95	
Bedford	300858	Millipore	80 Ashby Road	J. Thompson	RAO A-1 (Partial)	Industrial	Storm Drain	10/7/96	Nov-96
Bedford	310384	Mitre Corporation	Burlington Rd	R. Varnum	IRA			3/8/95	Dec-96
Belchertown	110541	DCPO	Belchertown WTP	J. Curtis	RAO B-1	Government	Sludge Bed	2/27/96	Nov-96
Belchertown	110170	Ben Sumner	Federal St	P. Hatch	rao			8/10/94	Oct-96
Belchertown	100878	Edward Noonan	Federal Street	N/A	STM			8/4/94	Oct-96
Bellingham	210377	B&D Gas	B&D gas	M. Hellstein	ram			6/30/95	Sep-96
Belmont	300093	Mobil	fmr mobil sta-pleasant st	K. Leach	waiver			3/2/95	Sep-96
Berlin	200573	Westborough Savings	W. Berlin St.	L. Lyman	RAO-P: A-1			8/31/95	Sep-96
Bernardston	101084	Agway, Inc.	Agway Facility	C. Morgan	ram			11/18/94	Sep-96
Beverly	300735	John Colantoni	Essex Street	M. Dacev	RAO A-2	Commercial	UST	7/26/96	Sep-96
Beverly	300234	Beverly Chemical	Water Street	P. Sommer	Tier IB	Residential	NAPL	6/12/96	Sep-96
Beverly	303597	B. P. Oil	Enon St	N/A	STM			5/11/95	Sep-96
Beverly	310572	Honeywell Inc.	Beverly High School	D. Phillips	rao			3/3/95	Sep-96
Beverly	311094	GTE Flight Op	L.P. Henderson Road	W. Betters	rao/ram			2/16/95	Sep-96
Billerica	300236	Rov Bros. Inc	Boston Rd	B. Paulding	rao			3/13/95	
Billerica	301614	Jons Realty Trust	Boston Road	S. Hebert	rao			8/11/94	
Billerica	303747	Mobil Oil	Mobil - Boston Road	N/A	waiver cond			4/11/94	
Blackstone	200684	Giguere & Marchand	Elmwood Ave	N/A	waiver			6/24/94	
Boston	312300	Mr. Naiar	One Strong Place	J. Stamafor	DPS	Residence	Petroleum	8/21/96	
Boston	311713	Richardson Aviation	Logan Airport	S. Pause	RAO A-1	Commercial	Spill - Jet Fuel	4/12/96	
Boston	300122	Mass Eye & Ear	Charles Street	M. DiPilato	Trans: NFA	Commercial	UST	2/27/96	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Boston	301449	TWA (AREA A)	TWA Tank Farm	J. Drobinski	RAO A-2	Commercial	UST	10/13/95	
Boston	301449	TWA (AREA B)	TWA Tank Farm	J. Drobinski	RAO C	Commercial	UST	10/13/95	
Boston	310027	Robie Properties	Robie Property	S. Mieridichian	RAO A-3			8/21/95	
Boston	312134	United States Army	Long Is. Road Fac	J. O'Brien	RAO A-2	Government	UST	8/8/95	
Boston	310186	City of Boston	Police Stn D-4. Warren	J. O'Brien	NRS			7/13/95	
Boston	304127	Independent Taxi	Albany Street	J. Jammallo	RAM Completion			7/13/95	
Boston	310103	Boston College	Service Bldg.	Ransom	IRA			11/21/94	
Boston	303415	Boston Aging	Cortes St	N/A	waiver			9/22/94	
Boston - JP	303584	City of Boston	Bickford St	N/A	waiver cond			5/9/94	
Boston - Matt.	303919	Amoco Oil	Blue Hill Ave	N/A	waiver cond			4/15/94	
Boston -	312460	Roxbury Com.	New Dudley St.	M. Hanley	RAO A-3	School	Sewer Line	8/20/96	
Boxford	304385	J.P. Proulx	Lily Pond Road	N/A	waiver cond			6/6/94	
Braintree	310890	Weymouth Concrete	Rock Sam Rd.	S. Kurz	RAO A-2	Commercial	UST	9/5/95	
Braintree	310256	Pearl St	Pearl St (#2)	V. O'Donnel	ram			7/13/95	
Braintree	310066	Pearl St Realty Trust	Pearl St	V. O'Donnell	RAM Completion			7/13/95	
Braintree	301460	The Budd Cos.	Messina Drive	J. Drobinski	RAO			4/18/95	
Braintree	310635	Grossman's Inc.	Garage Bldg Union St.	C. Lindberg	rao/ram			3/3/95	
Braintree	310906	John Hancock	Pond St	D. Wood	rao			10/28/94	
Braintree	304622	Norfolk Holdings	Fmr. Dairy Farm	A. Walker	rao			8/11/94	
Braintree	304813	Cumberland Farms	Cumberland - Pond	N/A	waiver cond			4/12/94	
Braintree	303354	Michael Gardner	Sunoco - Union St	N/A	waiver cond			4/11/94	
Bridgewater	400521	Cumberland Farms	Broad St	N/A	STM Inspect	Commercial	UST	12/27/95	
Bridgewater	410437	Woods Auto Parts	Woods Auto Parts	L. Silva	RAO			6/27/95	
Bridgewater	410041	A&J Realty Trust	Bedford St	T. Kaegael	rao			1/18/95	
Brighton	312761	Boston College	Sold. Fld. Rd. #1380	A. Walker	DPS	Commercial	Chlorinated	6/11/96	
Brighton	301497	Truesdale Co	Truesdale Co	N/A	waiver cond			4/20/94	
Brimfield	100319	Kenvon Oil Co	Sunoco-Drake Ser Stn	R. Cataldo	IRA			11/21/94	
Brockton	410168	Old Stone Federal	1100 Pearl St	H. Lord	RAO	Industrial	Drums	10/25/96	
Brockton	401217	Fishbach Properties	Burke Drive	K. Tull	RAO A-2/RAM	Commercial	UST	11/30/95	
Brockton	410114	Peter LaBouliere	West Elm St	D. Jaffe	rao			12/1/94	Sep-96
Brockton	410380	Richard Mann	Plain St	L. Silva	rao			11/8/94	
Brookfield	210294	Brookfield Elem Schl	Central Street	J. hardin	RAO	Government	UST	10/31/95	
Brookfield	201058	Alpheus Curtis	Al's Service Stn.	K. Eklund	rao			9/22/94	
Brookline	312438	MBTA	Beacon & Winchester St	R. Cummings	LRA	Right-of -Way	Lead	9/27/96	
Brookline	310521	Atlas Oil Corp	Lawton Street	J. O'Brien	RAO A-2	Residential	Leak	9/7/95	
Brookline	310351	MWRA	Newton St	Jaworski	rao			2/13/95	
Brookline	300706	Mobil Oil	Commonwealth Ave	N/A	waiver complt			11/22/94	
Brookline	304823	Cumberland Farms	Bovlston St	N/A	waiver cond			6/14/94	
Brookline	304814	Cumberland Farms	Washington St	N/A	waiver cond			4/12/94	
Burlington	311208	Bursaw Oil Corp.	Bedford Street	W. Mitchell	RAO A-2	Commercial	UST	8/30/95	
Burlington	310520	Johnson Fuel	Allison Drive	J. Stamatov	rao	Commercial	UST	4/27/95	
Cambridge	300277	WR Grace	Whittemore Avenue	W. Stimpson	NRS	Commercial	Industrial Waste	9/20/96	
Cambridge	311110	Joseph Robbins	Grev Gardens	D. Stimpson	RAO A-3	Residential	UST	2/27/96	
Cambridge	310471	MIT	Albany St.	D. Branco	RAO A-3	Commercial	Lead	10/10/95	
Cambridge	310558	Mt. Auburn Hosp	Mt. Auburn St.	L. Lessard	NRS			8/10/95	
Cambridge	301294	Berklev Investments	Franklin St.	L. Silva	rao			7/24/95	
Cambridge	304120	Water Tr Plant	Fresh Pond Parkway	D. Knox	RAO			6/7/95	
Cambridge	310005	Eli Hefron & Sons	Norfolk St	A Deltufo	rao/ram/ira			5/8/95	
Cambridge	301421	Broadway/Hampshire	Broadway St	W. Stimpson	rao			12/30/94	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Cambridge	301420	Moulton St Assoc	Moulton St Assoc	W. Simmons	rao	Ind>Com	UST	11/22/94	
Cambridge	302535	Acorn Properties	Acorn Park	N/A	waiver			7/15/94	
Cambridge	300269	Perino Industries	Belmont Ave	N/A	waiver cond			6/9/94	
Canton	310194	Bank of Canton	Washington St	D. Corev	RAO A-3			8/17/95	
Canton	304009	Star Enterprises	Washington St	M.Bingham	rao			5/12/95	
Canton	301662	Plymouth Rubber	Revere St	N/A	waiver complt			11/17/94	
Canton	303155	Mobil Oil	Mobil - Washington	N/A	waiver cond			6/2/94	
Carver	400911	Simone Corp.	Plympton St	N/A	Site Inspect	Industrial	NAPL	11/30/95	
Charlton	200761	Mobil	Station Mass Tnke	T. Williamson	Tier IB	Commercial	UST	5/14/96	Dec-96
Charlton	201076	New England Power	Fmr Mass Electric Sub	S. Ransom	rao			12/29/94	
Chatham	411657	Town of Chatham	613 Stage Harbor Road	T. Kaegael	RAO A-2	Commercial	UST	10/21/96	
Chatham	400512	Exxon Companv	Main St. FMR. Station	D. Pomerov	RAO B-1	Commercial	UST	6/26/96	
Chatham	410571	Arthur Nichols	Gammv's Lane	D. Bennett	RAO A-2	Residential	UST	9/20/95	
Chelmsford	303534	Star Enterprises	Fmr Star Ent Service	N/A	waiver cond			4/11/94	
Chelsea	311846	Coastal Oil	Marginal Street	C. Mvette	RAO A-1	Surface Water	Spill: Asphalt	5/20/96	
Chelsea	300821	NE Petroleum	Marginal St	W. Stimpson	NRS	Industrial	UST	2/14/96	
Chelsea	311673	NE Petroleum			See 3-0821			2/14/96	
Chelsea	310112	Colbert Trust	Spencer Ave.	J. Hardin	RAO/IRA	Commercial	UST	6/21/95	
Chelsea	303669	NE Produce Cntr	NE Produce Center	N/A	waiver cond			4/12/94	
Chelsea	302262	New Chelsea Real	Fmr Tank Farm - Eden	N/A	waiver cond			4/11/94	
Chester	110112	Wheeler Oil Co	Wheeler Oil	Cold Spring Env't	rao			12/28/94	
Chestnut Hill	311703	MWRA	2436 Beacon St	R. Cole	RAO C	Government	UST	8/6/96	
Chicopee	110413	Topor Dodge	Front Street	A. Weiss	RAO A-3	Commercial	Spill	3/18/96	
Chicopee	110146	F.L. Roberts & Co.	Meadow Street	K. Sheehan	NRS	Commercial	UST	12/29/95	
Chicopee	110387	Chicopee Housing	Meetinghouse road	P. Hatch	NRS	Residential	UST	12/14/95	
Chicopee	100466	Cabotville Ind Park	Fmr American Bosch	N/A	waiver			3/2/94	
Clinton	200031	Nat'l Perforating Corp	Parker Street	T. Lubv	RAM	Commercial	Spill	11/27/95	
Clinton	201037	Weetabix	Fmr Lancaster Mills	J. Lotharstein	RAO A-3	Industrial	UST	10/9/95	
Cohasset	311289	Target Industries	1 Pleasant St	J. Luker	RAO A-3	Commercial	UST	3/25/96	
Danvers	312609	W/SPeasab Properties	Fmr. Landfill	M. Worthington	NRS	Commercial	Landfill	3/25/96	
Danvers	312052	Danversport Yacht	Elliot St	R. Varnum	RAO B-1	Commercial	UST	1/29/96	
Dartmouth	410337	Waldo Howland	High Street	T. Kaegael	RAO A-2	Residential	Leak	9/26/95	
Dedham	300902	Petroleum Heat &	Allied Drive	N/A	waiver complt			11/28/94	
Dedham	310134	Darrell Miller	Mt. Vernon St.	M. Dickenson	rao			8/11/94	
Dedham	304035	Texaco	Washington St	N/A	waiver cond			4/11/94	
Dennis	400508	C. Taft	Lower Country Road	K. Eklund	RAO C			9/1/95	
Dorchester	311551	Boston Car Wash	W. Howell Street	L. Lyman	RAO A-1	Commercial	UST	6/28/96	
Dorchester	310601	Uphams Corner	Columbia Road	J O'Brien	RAO A-2/A-3	Commercial	UST	6/24/96	
Dorchester	311058	Exxon Companv	Morton Street	S. Dean	RAO A-3			8/30/95	
Dorchester	311049	Charista Property	Wescott Str	J. Borrebach	rao/ira	Residential	Spill	6/22/95	
Douglas	200284	Family Convenience	Main Street		Trans: NFA	Commercial	UST	7/12/96	
Douglas	200338	MB Properties Inc	Fmr Mr. Christmas	N/A	waiver			6/6/94	
Dover	303865	Dover Highway Dept.	Dedham Street	P. Sutton	RAO B-1	Commercial	UST	5/21/96	
Dover	312809	Algonquin Gas Tran	Haven St	T. Stephenson	RAO A-2. URAM	Utilitv ROW	Unknown	4/8/96	
Dracut	304460	Synthetic Labs	Victory Lane	W. Baird	rao			3/20/95	
Dracut	302805	Est of Ralph Hoare	Cannev Farm	N/A	waiver cond			6/22/94	
Dudlev	200777	C.Z. McCarthy Auto	So. Main Street	T. Arnev	RAO A-3			9/20/95	
Dudlev	200910	Kenvon Oil Co.	Dudlv Xtra Mart	M. Worthington	NRS			11/29/94	
Dudlev	200645	Guida-Seibert Dairy	Guida-Seibert Dairy	N/A	waiver			6/24/94	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Duxbury	410289	Alvin Hollis & Co.	Chandler St	K. Murrav	rao			9/15/94	
E. Boston	311701	Mass Highwav Dept.	Fmr National Car Lot	T. Alving	RAO A-1			9/5/95	
E. Boston	310233	T. Faretra	Foxwood Ave	W. Mitchell	NRS			9/1/95	
E. Longmeadow	110130	Mr. & Mrs. Lee	Fernwood Drive	M. Berger	NRS			8/23/95	
E. Longmeadow	110061	Garv McMahon	Baldwin Street	M. Talbot	NRS			6/29/95	
East Boston	300526	US Naval Fuel Depot	McClellan HWY	J. O'Brien	NRS	Industrial	Fuel Depot	7/9/96	
East Boston	304064	Mass Port	Pier 4	N/A	waiver cond			4/14/94	
Eastham	406068	Lower Cape Hum	State Highway	T. Kaegael	RAO A-1	Residential	UST Line	7/2/96	
Eastham	410005	N. Emond	Old Orchard Rd	T. Lamminen	NRS. RAM. IRA			2/7/95	
Easthampton	100728	JPS Textiles	27 Pavson Ave	M. Barvenik	RAO B-1	Industrial	USTs. TCE	8/26/96	
Easthampton	100068	Magnat Realtv Trust	Magnat Facilitv	N/A	waiver			4/13/94	
Easton	400370	Mobil Oil	Foundrv St	N/A	Site Inspect	Commercial	UST	12/19/95	
Everett	310118	Bradford Auto	E. Elm Street	J. O'Brien	DPS	Industrial	Junkvard	6/24/96	
Fall River	400532	EG&G Alvtech	Svkes Road	G. Garfield	Trans: Not A Site			9/15/95	
Fall River	400829	ECI Residuav Corp	Elbe-Cesco	N/A	waiver cond			7/8/94	
Falmouth	410523	Peter Bover	Academy Lane	J. Salvetti	RAO C	Government	UST	5/28/96	
Falmouth	400983	Capewav Auto Rec.	Gifford St	N/A	Site Inspect	Industrial	Soil	11/16/95	
Falmouth	410164	Wynne Oil Co	Meeting House Road	L. Lessard	RAO	Commercial	UST	11/3/95	
Fitchburg	210611	Boston & Maine Corp	Bemis Road	J. Drobinski	RAO A-1	Railroad	Spill	7/16/96	
Fitchburg	210334	Matthews Realtv	John Fitch Hghwav	R. Doherty	RAO B-2	Commercial	UST	12/18/95	
Fitchburg	210027	AMI Leasing	AMI Trucklease. Airport	S. Mieridichian	rao			7/7/95	
Fitchburg	210026	Alfred Raboin	Harvard Street Fmr	T. Brewer	NRS			6/30/95	
Fitchburg	210004	Cumberland Farms	Cumberland Farms	M. Worthington	rao			10/17/94	
Fitchburg	200375	Sanitov. Inc.	Sanitov. Inc. #2	N/A	waiver			6/30/94	
Foxborough	410510	Star Petroleum	Washington St	J. Nangle	rao/IRA			12/15/94	
Framingham	301356	Bardian Group. Inc.	Worcester Road	N/A	Waiver Complt			4/19/95	
Framingham	310248	GM	GM West Tank Farm		rao			4/14/95	
Framingham	303778	General Motors	Western Ave	N/A	waiver complt			10/27/94	
Framingham	304005	Star Enterprises	Texaco. Edgell Rd	N/A	waiver cond			6/7/94	
Framingham	302354	Shell Oil	Shell - 23 Water St	N/A	waiver cond			4/11/94	
Franklin	406016	J&J Corrugated Box	J&J Corrugated Box	C. Blake	rao			9/22/94	
Freetown	410280	Reliable Fuel	Highland Ridge Rd	K. Doherty	rao			12/12/94	
Gardner	210582	Newcomb-Walsh	Main Street	R. Berger	RAO A-2	Commercial	Culvert	2/12/96	
Gardner	200857	Al's Service Sta	Pearson BLVD Serv. Sta	A. Weiss	RAO B-1			4/3/95	
Gloucester	310332	B. Campbell	Waterside Ln	T. Loomer	NRS	Residential	unknown	12/1/95	
Gloucester	311557	Harbor Trust	Western Ave.	H. Mulligan	RAO B-1	Commercial	UST	11/7/95	
Grafton	210443	U.S. Postal	Upton Street	W. Mullio	RAO A-1	Government	UST	12/27/95	
Great Barrington	110020	Cumberland Farms	Main Street	S. Pause	RAO B-2			8/16/95	
Great Barrington	100444	Berkshire RHA	Adams-Budz VFW	N/A	STM			5/10/95	
Greenfield	100659	Rice Oil CO	Mohawk Gulf Gas Sta		STM			3/1/95	
Greenfield	100457	Sirum Bros	Main St		waiver complt.			1/19/95	
Hamden	100404	A. Timbro	Hamden Mini Mall		Transition NFA			11/8/95	
Hanson	410516	Northland	19 Hawks Ave	J. Loitherstein	RAO A-3	Commercial	UST	4/16/96	
Hardwick	210312	Mass Electric	MEC Substation	E. Johnson	rao			12/20/94	
Harvard	210159	Macomber & sons	Rt. 2 Westbound	S. Mieridichian	RAO A-1	Vehicle	Fuel Line	10/16/95	
Harwich	411348	Ms. Karen Fulcher	Chase St	B. Paulding	RAO A-2	Residential	UST	12/28/95	
Haverhill	303707	Hooker Costume	46-52 S. Main Street	J. Fox	RAO A-2	Commercial	Drvcleaning.	10/29/96	
Haverhill	300866	White St Motors	White St.	D. Corev	RAO A-2	Commercial	UST	11/24/95	
Haverhill	300326	Hoyt & Worthen	Railroad Street	C. Hoyt	Trans: Ad Reg			9/13/95	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Haverhill	304416	Citv of Haverhill	Fmr Hale Hospital	W. Simmons	rao/ram			5/8/95	
Hingham	300123	Largo Realty Inc.	100 Derby Street	A. Rothchild	IRAC	Commercial	Auto Service.	10/16/96	
Hingham	312098	Bear Hill Invest Corp	Hewitts Cove Marina	J. Fox	RAO A-1	Commercial	Marina	6/26/96	
Hingham	300187	Weeks Mobil	Whiting St	J. Landvn	NRS/RAM	Commercial	UST	12/4/95	
Holbrook	301837	Avon Custom Mixing	High & Spring	M. Dickenson	RAO A-3	Industrial	Wastewater.	7/12/96	Dec-96
Holbrook	300334	Brookville Sa. Energy	Franklin St.		STM			6/23/95	Nov-96
Holbrook	301021	C.K. Smith	Texaco. So. Franklin	N/A	Waiver			6/22/95	Oct-96
Holbrook	300557	Adolph Bauer. Inc.	South Street	N/A	waiver complt			11/9/94	Sep-96
Holden	210195	Kenneth Wagner	No Main St	B. Paulding	rao			4/14/95	Sep-96
Holden	200741	Sunnyside Motors	Main St	N/A	waiver complt			12/20/94	Sep-96
Holliston	200064	Ouality Beverage	Lowland St	T. Brewer	rao			12/14/94	Sep-96
Holvoke	110044	Northeast Utilities	Appleton Street	E. Johnson	rao			2/27/95	Sep-96
Holvoke	100700	Mobil Oil	Crabtree Mobil	N/A	STM. Waiver			3/11/94	Sep-96
Hopkinton	210740	Air Products &	Wilson Street	D. Simpson	RAO A-2	Industrial	Spill	6/4/96	Sep-96
Huntington	110086	NYNEX	Main St	D. Burgess	RAO A-2/RAM	Commercial	UST	11/27/95	Sep-96
Kingston	411223	St. Joseph Church	Main Street	G. Jolly	RAO A-2	Church	UST	3/11/96	
Kingston	410213	Fed. Home Mort Co	Howland Ave.	W. Perry	RAO	Residential	UST	7/5/95	
Kingston	400573	CK Smith	Main St Texaco		STM Inspect			12/14/94	
Lakeville	400101	CK Smith	Main St		Tier IB Inspect			12/19/94	
Lanesboro	100635	Savers Auto	Savers Auto Wrecking	N/A	STM			7/20/94	
Lawrence	310319	Cvr Oil Corp	Lawrence Street	S. Mieridichian	IRAC			4/3/95	
Lawrence	303352	DBT Corporation	Fmr Friction Materials	N/A	waiver complt.			6/30/94	
Lee	110188	Mead Specialtv Paper	Laurel Mill/Route 102	R. Brackett	NRS			6/28/95	
Lenox	110525	Attv Brian Quinn	625 Pittsfield Rd	K. O'Reilly	RAO A-2	Commercial	UST	4/1/96	
Lenox	101083	EPRI	E. New Lenox Road	E. Johnson	Trans: Further	Commercial	Spill	12/5/95	
Lenox	110131	Berkshire-Cranwell	Cranwell Conf	P. Clark	rao			2/14/95	
Lenox	100486	Berkshire-Cranwell	Cranwell Conf Cntr	P. Clark	rao			2/14/95	
Lenox	100785	Mobil Oil	Hoff's - Main St	N/A	waiver			5/12/94	
Leominster	210487	E.H. & J.H. Baker	Main Street	S. Mieridichian	RAO A-3	Commercial	Spill	1/22/96	
Leominster	210000	JW Nominee Trust	No Main St	R. Wozmak	rao			1/26/95	Dec-96
Leominster	200200	Constar Plastics	Amarin Plastics	E. Bleau-Richards	rao			11/4/94	
Leominster	210008	ABC Used Auto Parts	Central St	W. Simmons	rao			10/19/94	Dec-96
Leominster	210042	S.A.Y. Industries	Pioneer Drive	R. Wozmak	RAO A-3 (Partial)	Industrial	Spill	11/21/95	Dec-96
Leominster	210181	Novacor. Inc.	Fuller Street	D. Erb	RAO A-2			9/26/95	Dec-96
Leominster	210355	Shell Oil Prod. Co.	Main Street	M. Bingham	NRS			9/14/95	Dec-96
Leominster	210094	Don Hislop Trucking	Commercial Road	J. Purington	rao			4/10/95	Dec-96
Lexington	303486	Emerson & Cuming	25 Hartwell Ave.	S. Hanna	DPS	Commercial	Unknown	10/1/96	Dec-96
Lexington	301499	Lexington Building	35 Hartwell Ave	J. Hardin	DPS	Commercial	Ungradient	8/29/96	Dec-96
Lexington	310388	Shell Oil Companv	Bedford St.	J. Lavelvn	NRS			8/10/95	Dec-96
Lexington	302064	Imperial Realtv Trust	Marrett Rd.	N/A	Waiver Completion			7/10/95	Dec-96
Lexington	310966	Boston Edison	Mass Ave. Rear of #171	D. Wood	rao	Commercial	UST	5/16/95	Dec-96
Lincoln	311784	Lincoln Public Schl	Ballfield Road	C. Blake	RAO A-2	School	UST	6/28/96	Dec-96
Lincoln	311796	B&F Realtv Trust	South Great Rd.	S. Kurz	RAO A-2			8/28/95	Dec-96
Lowell	311986	Gasoline Merchants.	297-299 Broadwav	J. Borrebach	RAO A-2	Commercial	UST	10/2/96	Nov-96
Lowell	312274	Chiungos Properties	Pawtucket St #536	P. Corev	DPS	Commercial	Petroleum	6/24/96	Oct-96
Lowell	300573	Lowell Housing	Adams St. LHA Property		Transition: NFA	Government	UST	5/23/96	Sep-96
Lowell	300356	Construction Site	Warren & Church st.	S. Hebert	NRS	Commercial	Coal Gas.	5/6/96	Sep-96
Lowell	303509	Lowell General	Varnum Avenue	J. Luket	Trans: No Release	Commercial	UST Overfill	2/12/96	Sep-96
Lowell	300527	Texaco	Lincoln Square		STM			9/7/95	Sep-96

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Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Lowell	300905	Astro Circuits	Hale St.	R. Varnum	NRS	Industrial		7/14/95	Sep-96
Ludlow	110234	Ionics Inc.	West Ave. Fmr Rexcel	E. Johnson	RAM			6/22/95	Sep-96
Ludlow	110395	Ionics Inc.	West Avenue	E. Johnson	RAO. RAM			6/22/95	Sep-96
Ludlow	100996	Town of Ludlow	Sportsman Road	D. Cardinale	rao			1/24/95	Sep-96
Lunenburg	210023	P.J. Keating Co.	Reservoir Road	K. Eklund	NRS	Industrial	UST	7/11/96	Sep-96
Lunenburg	200395	Exxon Companv	Electric Ave.	M. Davev	RAO A-2			8/7/95	Sep-96
Lvnn	311034	Color Tile	Lvnnwav	J. Drobinski	RAO A-3	Commercial	Lead	10/11/95	Sep-96
Lvnn	302971	Mobil Oil	Broadwav	K. Kavanaugh	rao			10/28/94	
Lvnn	302971	Mobil Oil	Broadwav	N/A	waiver cond			6/7/94	
Malden	301472	Gasoline Ser. Sta.	Madison Street	M. Toomev	NRS	Commercial	UST	9/18/95	
Malden	300759	Bierbrier	Merit Oil	N/A	waiver			9/22/94	
Manchester	303248	T. Leland	Ashland Ave/Marine	N/A	waiver complt			11/2/94	
Marblehead	304472	Tuckers Wharf LTD	Tucker's Wharf	J. Curtis	RAO A-3	Commercial	UST	11/7/95	
Marblehead	311102	Tucker's Wharf LTD	Tuckers Wharf	J. Curtis	RAO B-1	Commercial	Metals	11/7/95	
Marblehead	304795	B. Peabody	Atlantic Ave	P. Mullonev	rao/ram			5/4/95	
Marblehead	304414	Anthonv Guba	Bursaw Oil	N/A	waiver cond			6/7/94	
Marlboro	210724	MacNeill Engineering	289 Elm St	J. Drobinski	RAO A-1	Industrial	Lube Oil Overfill	8/13/96	
Marlboro	200516	Peter H. McCann	East Main St	N/A	waiver			6/24/94	
Marlborough	210881	Connecticut Container	300 Cedar Hill St	G. Garfield	RAO A-2	Industrial	UST Line	10/18/96	
Marlborough	200908	MA Container Corp	Cedar Hill St	G. Garfield	Waiver Complt	Commercial	UST	11/6/95	
Marshfield	410528	Marshfield BP Station	969 Ocean St	S. Kurz	RAO A-2	Commercial	UST	10/25/96	
Mattapoisett	410459	NYNEX	Mechanic St.	H. Solomon	RAO A-2	Commercial	UST	9/20/95	
Medford	300889	Webster Trucking	Webster Trucking	T. Stevenson	RAO/AUL			2/10/95	
Medford	301020	Exxon Co	Main St	T. Kemper	ram	Commercial	UST	2/7/95	
Medwav	210565	Boston Edison	West St.	M. Pierdinock	RAM			8/9/95	
Melrose	310123	Highland TV	W. Wvoming Ave.		RAO	Commercial	UST	5/8/95	
Middleton	303205	Bodaka Associates	Log Bridge Rd	N/A	waiver complt			11/18/94	
Milford	210144	Atlantic Petroleum	Jillson Circle	L. Silva	RAO A-2	Residential	Spill	9/20/95	
Millbury	201018	Marane Oil	54 Canal St	P. Vargo	RAM	Commercial	UST	4/29/96	
Millbury	210707	Marane Oil	Canal St	P. Vargo	RAM			7/7/95	
Milton	303296	Mobil Oil	Mobil - Granite Ave	N/A	waiver cond			6/2/94	
Natick	303344	Oak Realtv Trust	14 Tech Circle	J. Loitherstein	RAO A-1	Industrial	Chlorinated	1/16/96	
Natick	310559	Cadle Co.	Richard Rd	R. Ankstitus	rao			3/17/95	
Natick	303496	U.S. Trust	Lookout Farm	N/A	waiver cond			10/20/94	
Natick	300715	Mobil Oil	Fmr Amoco - Worcester	N/A	waiver cond			6/2/94	
Needham	310988	Corning Lab Service	Fourth Avenue	A. Andronico	RAO A-1	Commercial	Spill	9/7/95	
Needham	310443	Robert Heath	Glendale Ave.	S. Kurz	RAO A-2	Residential	Leak	8/17/95	
Needham	300391	ARCO Products co.	West Street	M. Robbin	waiver completion			3/2/95	
Needham	301007	Ken Nowak	Gr. Plain Mobil	N/A	waiver complt			11/4/94	
New Bedford	410880	Circle K	Kempton St	T. Kemper	RAO B-1	Commercial	UST	9/20/95	
New Bedford	410002	Covne Textile Corp	Howard Ave.	P. Corev	RAO A-2			8/22/95	
New Bedford	410113	Polaroid Corp	Duchaine Blvd.	J. Spirito	rao			4/13/95	
New Bedford	401298	Cumberland Farms	Achushnet Ave	K. Sheehan	RAO			3/27/95	
New Bedford	401168	Nissen Baking	Fmr Guisti Bakerv	N/A	Waiver. IM			4/5/94	Sep-96
Newbury	310518	Prudential Mome	Fortv Second Street	W. Simmons	rao			4/4/95	
Newburyport	312316	Mass Electric	Malcolm Street	A. Walker	RAO A-2	Industrial	Transformer	3/5/96	
Newburyport	311857	Crest-Hood Foam	Parker Street	G. Siegel	Trans:Not Release	Commercial	Spill	2/28/96	Nov-96
Newburyport	310684	Hall & Moskow Corp	Water Street	S. Ransom	RAO A-3	Industrial	Drums	2/12/96	Oct-96
Newburyport	303360	Mobil Oil	Storev St	N/A	waiver cond			4/15/94	Oct-96

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Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Newton	300172	S&J Realty Trust	24 Border St	J. O'Brien	DPS	Industrial	Multiple	10/7/96	Sep-96
Newton	302212	L. Gordan	Centre Street #249	A. Deltufo	Trans: Not a Site	Commercial	UST	3/18/96	
Newton	304267	Exxon	Beacon St	B. Ross	IRA. STM	Commercial	UST	10/13/95	
Newton	302461	Omni Corp.	Watertown St	D. Jaffe	rao/ram			5/11/95	
Newton	302560	Steve Donato	Fmr Avis/Radiant	N/A	waiver cond			11/22/94	
Newton	303438	Price Rehab Center	Former Alumabilt	T. Alving	rao			7/14/94	
No Brookfield	200971	Crowlev Fuel	Bigelow St	S. Mieridichian	RAO			6/30/95	
No. Attleborough	401125	Exxon Companv.	So. Washington St.	S. Dean	Trans: No Rnt	commercial	UST	10/30/95	
No.boro	210043	Tovs R Us	Beeman Road	P. Burgess	RAO			7/11/95	
Norfolk	302942	G&H Real Estate	Route 1A & 115	R. Bukoski	RAO A-2	Commercial	Septic Tank	12/18/95	
North Andover	302780	Haffners	Chickering Rd.	N/A	Waiver			7/24/95	
North Andover	306003	Mass Electric	Brentwood Circle	A. Walker	rao			7/29/94	
North Attleboro	410203	Manderville chevrolet	Manderville Chevrol	R. Kowalski	rao/ira	Commercial	UST	6/20/95	
North Billerica	304427	Harrr Wright Sr.	Wright Service Stn	N/A	waiver cond			12/9/94	
Northampton	110091	Charles Lennon	Roe Avenue	M. Hellstein	RAO. A-2	Residential	UST	1/25/96	
Northampton	110586	Packaeing Corp.	Mount Tom Rd	unknown	Site Inspect - RAM	Industrial	Drums	11/8/95	
Northampton	100743	Exxon	N. King St	L. Streeter	RAM			3/23/95	
Northampton	100861	Shell	main street shell	R. Brackett	RAM			3/3/95	
Northborough	200587	Pierce Oil & Gas	W. Main St.	A. dav storre	NRS	commercial	UST	10/27/95	Dec-96
Northborough	210206	Northborough Realty	Sweetlife Foods	K. Sheehan	rao			1/13/95	Dec-96
Northborough	210384	New Corr Packaeing	Lyman St	G. McCarthv	rao			11/23/94	Oct-96
Northfield	100480	Spencer Ford	Main St	J. Spenser	rao			3/23/95	Oct-96
Norwell	410009	D. Cutler	Bridge St	J. O'Brien	NRS			2/22/95	Sep-96
Norwell	400134	Shell Oil	Washington St		Tier IB Inspect			12/19/94	Sep-96
Norwood	303362	Polaroid	Polaroid Bldg N-3	L. Feldman	RAO. A-2	Industrial	UST Piping	1/11/96	
Norwood	301545	BP Oil Co	Fmr Gibbs Service	S. Pause	STM			3/21/95	
Orange	100509	Sogard Tool	East River Street	J. Spenser	NRS	Industrial	Machine Oil	6/20/96	
Orange	110162	James Senn	So. Main St.	J. Spenser	RAO A-1	Roadwav	Spill	11/3/95	
Orange	110281	Ocean Reef Club	So. Main Street	E. wood	RAO A-1	Residential	Drums	10/13/95	
Orange	110226	Bank of Western MA	West River St	M. Burke	rao			1/10/95	
Orleans	410613	SKW Real estate	Cranberrv HWY	J. Salvetti	DPS RAO C			8/23/95	
Orleans	410183	R. Snow	Gibson Road	D. Bennett	rao			12/15/94	
Orleans	400391	Gettv Petro	Cranberrv Highway		STM			12/13/94	
Palmer	100469	Triangle Casting	Palmer Road		Trans: NFA	Industrial	UST	6/27/96	
Palmer	110087	Presidential Prop	Wilbraham St.	J. spencer	NRS			8/30/95	
Palmer	110191	Mass Electric	Fuller St. Pole 5	E. Johnson	RAO	Commercial	Spill	6/30/95	
Palmer	100686	Estate of Lou Smola	North St	N/A	STM			10/18/94	Oct-96
Peabody	304251	Bursaw Oil Co.	137 Newburv St	M. Bingham	RAO A-2	Commercial	UST	10/10/96	Sep-96
Peabody	312406	Papa' Gulf	Trans: NDS					6/5/96	Sep-96
Peabody	301952	ARA Realty Trust	Newburv St. Service Sta	F. Vetere	Trans: Release	Commercial	UST	6/5/96	
Peabody	310675	Stahl USA	Howlev Street	M. Barvenik	RAO A-2	Industrial	UST	11/27/95	
Peabody	310548	D. Swim	Fmr Expert Fence	J. Stamatov	rao/ram			4/7/95	
Peabody	310343	Peabody Motors	Fmr Picacadilly Pub	J. Errico	rao			2/21/95	
Peabody	310036	Alamo Rent-A-Car	Newburv St	G. McCarthv	rao	Commercial	Spill	12/15/94	
Peabody	303796	Greater Boston Bank	Webster St	N/A	waiver cond			6/16/94	
Peabody	303100	Denise. Inc.	Newburv St	N/A	waiver cond			6/9/94	
Pittsfield	110704	City of Pittsfield	Pittsfield High	R. MacLean	RAO A-2	School	UST	4/30/96	
Pittsfield	100709	Mark Lipton	Lipton Drive	P. Clark	RAO B-1	Industrial	Pesticide	3/18/96	
Pittsfield	100974	Tredegear Molded	Pecks Road	P. Clark	RAO B-1	Industrial	Chlorinated	12/1/95	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Pittsfield	110134	UPS	Downing Parkway	M. Worthington	RAO	Commercial		6/29/95	
Pittsfield	100986	Gettv	Gettv Station		STM			2/16/95	
Pittsfield	100919	Regur. Inc.	East St Plaza	N/A	waiver			6/3/94	
Plvmouth	400369	Dunlap's Service	38 Samoset St	S. Rumba	DPS. RAO A-2	Commercial	UST	9/3/96	
Plvmouth	410511	Gulf Station	Sandwich	T. Lamminen	NRS	Commercial	UST	10/25/95	
Plvmouth	410524	Plvmouth Fire Dept	Bourne Street	J. Stroup	RAO A-2	Government	UST	9/20/95	
Plvmouth	410379	Cumberland Farms	Samoset St	S. Pause	NRS			3/9/95	
Plvmouth	400418	CK Smith Co.	Sandwich St		STM Inspect			12/14/94	
Quincv	310665	I. Vaino	Suomi Road	J. O'Brien	rao	Residential	Leak	5/25/95	
Quincv	301859	Marina Bav Mngt Inc	Victory Rd	N/A	waiver cond			2/7/95	
Quincv	302054	Pneumatic Scale	Pneumatic Scale	N/A	waiver complt.			8/26/94	
Quincv	303804	Proctor & Gamble	Washington St	N/A	waiver cond			4/15/94	
Randoloh	302208	Burke Distributors	Teed Drive	S. Wernig	CRAs: Tier II	Commercial	UST	9/22/95	
Ravnham	411098	Joseph Sullivan	Broadway	T. Lamminen	RAO A-1	Roadway	Fuel Tank	3/11/96	
Ravnham	400249	Star Enterprise	Route 44 & South St	N/A	Tier IB Inspect			1/13/95	
Reading	310836	NYNEX	Linden Street	D. Johnson	RAO A-3	Commercial	UST	9/5/95	
Reading	301587	BP Oil Co	Gibbs Station 5432	N/A	waiver cond			9/19/94	
Reading	300047	Reading DPW	Former DPW	N/A	waiver			9/7/94	
Reading	303459	Sun Refining	Sunoco	N/A	waiver cond			8/10/94	
Revere	311268	AMA Transport	Revere Beach Pkwy	D. Simpson	RAO A-1	Roadway	Spill	3/28/96	
Revere	310985	Transeas Inc.	Butler Circle	G. McCarthv	RAO A-1	Pavement	Spill	8/30/95	
Revere	301500	Wendv's	Fmr Wendv's	N/A	waiver			10/5/94	
Revere	301707	Sun Refining	Sunoco	N/A	waiver cond			8/10/94	
Roslindale	311067	High Pt Shopping	Washington Street	T. Nunno	RAO A-2	Commercial	AST	6/26/96	
Roslindale	300705	Mobil Oil	American Legion	N/A	waiver cond			4/19/94	
Rowlev	311582	Laidlaw Waste Mgmt	Boxford Road	A. Kirschner	RAO A-2	Commercial	UST	5/28/96	
Roxburv	311516	Roxburv Community	New Dudlev&Tremont	M. Hanlev	RAO A-1	School	Sewer Line	7/2/96	
Roxburv	311388	Harvard Schl Public	Huntington Ave.	D. Gerault	RAO A-1. RAM	Residential	Fill	9/21/95	
Roxburv	310477	NYNEX	Waverlv St	P. Baril	ram	Commercial	UST	1/27/95	
Roxburv	303042	U-haul	U-haul Mass Ave	N/A	waiver cond			10/20/94	
Roxburv	301977	Mass DCPO	South Bay Ave	N/A	waiver complt.			8/11/94	
Salem	301703	SESD	Walnut Street	P. Burgess	RAO. B1	Industrial	Disposal	2/23/96	
Salem	300427	Osram Sylvania	Boston St	M. Bucknam	RAO A2 EO	Commercial	USTs	2/5/96	
Salem	302790	George Peabody	Peabody St	N/A	waiver complt			7/13/95	
Salem	310498	NE Power Co	Salem Harbor Stn	S. Ransom	rao/ira			3/3/95	
Salem	303892	Sun Refining	Sunoco - North St	N/A	waiver cond			8/22/94	
Salem	303741	Salem Hospital	Linde St	N/A	waiver complt.			7/5/94	
Salem	300433	GTE Products Corp	GTE/Sylvania	N/A	waiver cond			6/16/94	
Salem	303206	BP Oil	Derbv St	N/A	waiver cond			4/15/94	
Salisburv	300771	Causeway Ent.	Causeway Ent.	H. Lord	rao			9/12/94	
Sandwich	406028	Exxon USA	Route 6A fmr. Exxon	S. Dean	NRS	Commercial	UST	6/26/96	
Sandwich	410236	S. Hassan	Spring Hill Rd	J. Salvetti	IRA			11/28/94	
Scituate	410119	C. Murphv	Counrv Wav	G. McCarthv	rao	Residential	UST	3/17/95	
Seekonk	400982	Mobile oil Corp	Fall River Ave Mobile		STM inspec			3/9/95	
Sep-96	310225	Richdale Conv. Store	Rowlev	S. Migridichian	RAO A-2	Commercial	UST	5/23/96	
Shrewsburv	200169	Edward Flvnn	Hartford Turnpike	G. Coral	NRS			12/20/94	
Shrewsburv	200169	Shrewsburv Ser. Stn.	Hartford Tnck	G. Coral	RAM			12/20/94	
Shrewsburv	200872	Sun Oil	Sunoco	M. Bingham	rao			9/22/94	
So Deerfield	110123	MA HighWay Dept.	Maintenance Depot	A. Hansom	RAO/IRA			6/13/95	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Somerset	401185	Getty Petro	Wilbur Avenue	P. Vargo	NRS/RAM/lsp eval			2/28/95	
Somerville	303393	Ames Safety Env	Dane St	A. Donovan	rao			3/11/95	
Somerville	302582	A&D Realty Trust	Gus Service Stn	N/A	waiver cond			6/7/94	
South Boston	302809	Dept of the Army	Harbor Gateway Ind	N/A	waiver cond			7/19/94	Sep-96
South Boston	300763	U.S. Army Corp	BMI. Drvdock Ave	N/A	waiver cond			6/9/94	Sep-96
South Boston	304754	Boston Wat & Sewer	Fargo & D	N/A	waiver cond			4/15/94	
South Hadlev	100160	Graphics Technology	James River Graphics	N/A	waiver cond			7/12/94	
Southboro	210058	Rollins Leasing	Boston Road	C. Ambrose	RAO/RAM	Commercial	UST	7/20/95	
Southborough	210002	McCarthy Pools	Turnpike Road	T. Lubv	rao			11/8/94	
Southbridge	210376	JP Manufacturing	Lovelv Street	G. Benson	NRS	Industrial	Oil Leaks	12/29/95	
Southbridge	210110	Southbridge Liverv	Southbridge Liverv	S. Mieridichain	RAO A-2	Industrial	UST	10/5/95	
Spencer	210014	Mass Electric	Meadow Rd Substation	T. Snav	RAO A-1	Utility	Transformer	3/19/96	
Springfield	110753	Southland Corp.	450 Cooley St	M. Worthington	RAO A-2	Commercial	UST	10/4/96	Sep-96
Springfield	100202	Smith & Wesson	2100 Roosevelt Ave	K. Sheehan	NRS	Industrial	Disposal. USTs	8/16/96	Sep-96
Springfield	100182	RNR Realty	Robbins Road	G. Ritter	RAO A-2	Commercial	UST	5/9/96	Sep-96
Springfield	110574	Amtrak	Lyman Street	A. Del Tufo	RAO A-1	Commercial	Railroad	5/7/96	
Springfield	110555	Matthew's	Boston Post Road #1275	H. Solomon	RAM	Commercial	Spill To	5/1/96	
Springfield	100306	Forge Development	chestnut street	N/A	Waiver Completion	Commercial	UST	3/4/96	
Springfield	110791	Houser Buick	York Street	J. Gagnon	RAO A-2	Commercial	UST	12/1/95	
Springfield	100213	United Tech	Main St	N/A	STM Inspect	Industrial	NAPL	11/30/95	
Springfield	110437	Mobil	Boston Road	T. Williamson Jr.	NRS	Commercial	UST. Spill	11/17/95	
Springfield	110440	Oualex, Inc.	Dwight St	D. Collins	RAO A-2			8/10/95	
Springfield	110129	FL Roberts	W Columbus Ave	K. Sheehan	NRS			7/27/95	Sep-96
Springfield	110222	Midland Asset Mgt.	Bvers Street	R. Wolfertz	RAO			6/30/95	
Springfield	110230	Milestone Truck	Shaws Lane	J. Gagnon	rao			6/15/95	
Springfield	110247	Sun Company, Inc.	Wilbraham Rd		rao			5/30/95	
Springfield	110250	City of Springfield	Pearl St	T. O'Brien	NRS			5/24/95	
Springfield	100295	B&B Petroleum	Fmr Damours	M. Hellstein	RAM			5/8/95	Sep-96
Springfield	100176	F.L. Roberts	Armory St	T. O'Brien	RAM			4/13/95	
Springfield	110145	F.L. Roberts	Boston Rd	K. Sheehan	IRA			3/9/95	
Springfield	100806	Shell Oil	Shell - State St	N/A	STM			8/26/94	
Springfield	100185	Nat Metal Finish	Nat Metal Finish	N/A	STM			8/15/94	
Springfield	100831	Springfield College	Kaklev Ind Park	N/A	XIM			8/8/94	
Springfield	100169	Cottage St Realty	Cottage St Disp Area	N/A	waiver			6/20/94	
Springfield	100616	Stephen Grav	Fmr American Dream	N/A	STM			6/9/94	
Springfield	100213	United Technologies	Main St	N/A	STM			2/7/94	
Stoneham	311844	Central Animal Hosp.	Central Street	F. Hopcroft	DPS	Commercial	Chlorinated	5/20/96	
Stoneham	311844	Central Animal Hosp.	Central Street	F. Hopcroft	RAO C	Commercial	Chlorinated	5/20/96	
Stoughton	411714	Exxon Station	28 Dvkeman Wav	D. Pomerov	RAO A-2	Commercial	UST	10/24/96	
Sudbury	301153	Growth Companies	Boston Post Road	S. Kurz	rao			9/2/94	
Sutton	210096	NYNEX	NET Route 146	M. Landin	RAO	Commercial	Spill	7/27/95	
Taunton	400403	Wilson O Smith Trust	Railroad Avenue	T. Ouzilev	NRS	Industrial	USTs	7/11/96	
Taunton	401103	H&L Bloom, Inc.	Cohannet Street	P. Corev	RAO A-2	Commercial	UST	5/22/96	
Taunton	410235	Gramov's Convenient	High Street	S. Mieridichain	NRS	Commercial	UST	10/3/95	
Taunton	400577	St. Mary's Hosp	Fmr Goodvear Tire	N/A	waiver complt.			8/8/94	
Tewksbury	310099	Holt & BVGBEE Co.	Shawsheen St.	F. Sweet	NRS			7/14/95	
Tewksbury	303181	Mobil Oil	Andover St	N/A	waiver cond			4/15/94	
Topsfield	300983	Cvr Oil Corporation	Rte 1 & Ipswich Rd.	S. Mieridichian	RAO A-2	Commercial	UST	6/12/96	
Topsfield	302088	John F. Doorly	Averill St	J. Fox	RAO A-2	Residential	UST	12/15/95	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Topsfield	303383	Leonard Nagle	Boston Street	N/A	waiver cond			4/15/94	
Townsend	210578	Raianiemi Bus	368 Main St	S. Migridichian	RAO A-1	Commercial	AST	10/30/96	
Truro	410336	Paul LeFort	Perry Road	H. Lord	RAO A-2	Residential	UST	2/20/96	
Uxbridge	210508	Nelmore Companv	Rivulet Street	K. Taliadouros	NRS	Industrial	Pipeline-Oil	7/16/96	
Uxbridge	200374	Rov's Mobil Stn	N. Main St.		Waiver			1/3/95	
Uxbridge	200374	Mobil	Rov's Mobil	N/A	waiver			6/30/94	
W. Bridgewater	400407	Shell Oil	West Center St	N/A	STM Inspec			4/4/95	
W. Springfield	110118	M.S. Carriers	Ashlev Ave		RAO	Pavement	Spill	5/10/95	
Wakefield	310561	Wakefield DPW	North Ave	J. O'Brien	NRS	Government	UST	12/4/95	
Wakefield	310561	Wakefield DPW	North Ave	J. O'Brien	RAM	Government	UST	2/22/95	Dec-96
Wakefield	300443	Kvtron Circuits	Kvtron Circuits	N/A	waiver			9/22/94	
Wakefield	301720	Sun Refining	Sunoco	N/A	waiver cond			8/15/94	
Walpole	303310	Bird Machine	Neonset St	N/A	waiver complt			11/17/94	
Walpole	302469	Bird Machine	Cart Path Area	N/A	waiver complt			11/17/94	
Waltham	302175	Bavbank Svstems.	1075 Main St.	F. Sweet	RAO A-2	Commerical	UST. Spills	8/20/96	
Waltham	300448	Revival Trust-Neelon	Calvarv Street	R. Cushing	NRS	Industrial	UST	7/30/96	
Waltham	310991	Blackwell Realtv	Sun Street	J. Nangle	NRS	Industrial	Floor Drains	7/8/96	
Waltham	302055	MacDowell Companv	139-171 Bear Hill Road	L. Feldman	DPS	Commercial	Chlorinated	4/16/96	
Waltham	302117	WASA MGMT	Winter St	D. Wood	Trans: No Rnt	Commercial	UST	10/10/95	
Waltham	311729	E. Rilev	Shawmut Road	R. Ankstitus	RAO	Residential		7/24/95	
Waltham	310289	Waltham Auto & Tire	Clematis Ave	M. Donato	rao	Commercial	UST	7/24/95	
Waltham	302055	Chrvsler Realtv	Bear Hill Road	M. Burke	rao			4/11/95	
Waltham	302557	Waltham Chemical	Crescent St	C. Teale	rao			3/10/95	
Waltham	302143	Standard-Thomson	Grove St	N/A	waiver cond			4/15/94	
Waltham	304581	Brandeis	South St	R. Tella	rao			11/24/94	
Ware	100720	Profiles Inc.	Palmer Road	L. Lyman	Trans: Not A Site	Commercial	Spills	10/16/95	
Ware	100643	HRG Development	Ware Equipment Corp	N/A	stm			7/6/94	
Wareham	400371	Exxon Cos.	Marion Road	N/A	STM Inspect			1/25/95	
Wareham	400755	Tremont Nail	Elm St	N/A	waiver			1/6/95	
Warren	210529	Hardwick Knitted	South Street	P. Hatch	RAO A-1	Industrial	Spill	12/7/95	
Warren	210371	Hardwick Knitted	South Street	P. Hatch	RAO A-1	Industrial	Spill	12/7/95	
Watertown	302538	Watertown Assoc	Watertown Mall	J. Nanele	waiver cond			5/2/95	
Watertown	300812	Mobil Oil	Mt Auburn St	N/A	waiver cond			6/9/94	
Wavland	304490	Cumberland Farms	Gulf Service Stn	N/A	waiver			8/10/94	
Webster	210446	Salem Tomato Pking	Upland Avenue	G. Benson	raml. irac			8/31/95	
Webster	200739	AIG Consultants	Gore Road	N/A	RAO - Transition			4/18/95	
Webster	200681	BP Oil Co	Fmr Gibbs Station	N/A	waiver			5/2/94	
Welleslev	302857	Eastleigh Farms	Tovota	N/A	waiver complt.			10/5/94	
Wellfl	401014	Gettv Petroleum Co.	fmr. Gettv Station	B. Rilev	Tier IB Inspect			2/27/95	
Wellfleet	400847	Mobil Oil	Route 6	N/A	STM Inspect	Commercial	UST	12/28/95	
West Bovelston	210017	D. Noonan	Hartwell Realtv	R. Johnson	IRA			4/18/95	
West	411467	Ms. Hallisev	710 North Main St	K. Eklund	RAO A-2	Commercial	UST	4/24/96	
West Roxburv	301422	Hillside Management	Berestrom Motor	T. McSweeney	rao			8/9/94	
West Springfield	110042	Sun Companv	Westfield St. Citgo Sta	W. Fabbri	RAM			3/1/95	
West Springfld	100235	Savage Industries	Springdale Rd	N/A	waiver			4/25/95	
West Springfld	100170	Paul Salvage	Sanford Tool	N/A	waiver cond			4/25/94	
West Springfld	100221	Arco Products Co	Central St	N/A	waiver			3/17/94	
Westboro	210089	N.E. Power Serv. Co.	Research Drive	D. McGlinev	RAO	Commercial	Spill	6/30/95	
Westborough	200489	Data General Corp.	Computer Drive	J. Hardin	RAO			7/19/95	

NOAFs as of October 1996

Town	RTN	NOAF recipient	Release Location	LSP of Record	Type of Action	Site Type	Source Type	NOAF	Date in LSPA
Westborough	200913	Llennoco Corp	King Instrument	N/A	waiver			6/15/94	
Westfield	100238	Akzo Nobel Salt, Inc.	Union Street	J. Huft	RAO A-2	Commercial	Spill	12/29/95	
Westfield	110595	Kimberly-Clark	Elise St	K. Sheehan	RAO A-2	Commercial	UST	12/12/95	
Westfield	100875	Mobil Oil	Elm Street	T. Williamson Jr.	RAO A-2			9/15/95	
Westfield	110298	Dauphinis & Son	Union St	E. Johnson	IRAC			4/13/95	
Westfield	110066	J. Kantanv	East Main St	S. Bennett	RAM			1/17/95	
Westminster	210037	Digital	Digital Drive	N. Roberts	RAO	Commercial	UST	3/31/95	
Weston	303473	Mass Turnpike	South Avenue	N/A	waiver cond			4/15/94	
Weymouth	302837	Gettv Petroleum	Washington St	N/A	waiver cond			4/15/94	
Wilbraham	100242	Mobil Oil	467 Main St	T. Williamson	RAO A-2	Commercial	UST, Private	9/20/96	
Williamsburg	100243	MJ Moran	So. Main Street	P. Hatch	Transition NFA	Residence	UST	12/19/95	
Williamstown	100855	T. Phillips	Spruce Mobil Home Pk	N/A	Transition NFA	Residential	UST	11/27/95	
Wilmington	310420	J. Assetta	Walker Street	D. Corrv	RAO A-2	Residential	UST	3/14/96	
Wilmington	310067	Ballardvale Assoc	Ballardvale Street	C. Horan	RAO B-1,IRA	Commercial	UST	1/29/96	
Wilmington	301300	Textron Defense	Chemical Storage	N/A	waiver complt			11/20/94	
Wilmington	302158	Sherwood Oil Co	Lowell St.	D. Jaffe	RAO. A-2	Commercial	UST	2/29/96	
Winchendon	210006	winchendon furniture	Railroad St	E. Johnson	rao			4/19/95	
Winchester	300667	Winchester Assoc	Main Street	N. Keane	RAO A-1	Commercial	Chlorinated	6/11/96	
Winchester	304426	G. Lucchesi	Main St	P. Mullonev	rao/ram			5/5/95	
Winchester	310116	Computer Fullfillment	Cross Street	I. Gladstone	RAO			4/26/95	
Wilmington	301787	Whitnev Barrel	Woburn St	M. Capaccio	Trans: No Release	Industrial	VOCs	12/14/95	
Woburn	301063	Mr. Rilev	205 Wildwood Ave	S. Hebert	Waiver Completion	Industrial	Tannerv Waste	10/7/96	
Woburn	300482	Beatrice	Salem Street	S. Hebert	RAO EO	Industrial	Tanning/Chromi	1/4/96	
Woburn	302518	UndercoverWear	UndercoverWear	N/A	waiver			7/11/94	
Woburn	304000	The Alpine Grp.	General Plasma	N/A	waiver cond			6/9/94	
Worcester	210831	Portland Realtv Corp.	22 Portland St.	J. Jammallo	RAO B-1	Commercial	UST	10/17/96	
Worcester	210639							10/10/96	
Worcester	211062	Citv of Worcester	36 Upsula St	L. Silva	RAO A-3	Residential	UST	9/5/96	
Worcester	210999	A.I. Automotive Inc.	176 Green St	A. Stone	RAO B-1	Commercial	UST. #6 Oil	8/30/96	
Worcester	210824	J.J. Nissen Baking	7 Ballard St.	M. Germano	RAO A-3	Commercial	UST	8/21/96	
Worcester	200190	Phvllco Inc.	Southbridge St.		Trans: NFA	Industrial	Waste Oil Wells	7/10/96	
Worcester	210588	Polar Corporation	Walcott Street	L. Lyman	RAO A-2	Industrial	UST	5/14/96	
Worcester	210426	Commonwealth Gas	Quinsigamond Ave.	W. Woal	RAO. A-1	Industrial	UST	1/16/96	
Worcester	200205	Greendale Assoc			NRS			11/21/95	
Worcester	210760	Stanlev Works	Washington St.	T. Jordan	RAM			9/20/95	
Worcester	210415	Mr. Sean Soheili	Bovlston Street	S. Migridichian	RAM			8/15/95	
Worcester	210047	Medical Ctr	Belmont St.	I. Phillips	RAO			6/14/95	
Worcester	210141	USS Indust. Park	Millburv Street	J. McTigue	rao			4/7/95	
Worcester	200992	NYNEX	FMR NYNEX Garage	D. Podsen	RAO/Waiver Com			2/22/95	
Worcester	200302	Frank Eastman	Drake Petroleum Site	N/A	waiver			6/10/94	
Wrentham	411655	NYNEX	145 South St	D. Stoner	RAO A-1	Industrial	UST	9/25/96	
Yarmouth	406061	Ms. Chamberlain	39 Green Wav	C. Gallinaro	NRS	Residential	Oil Line	8/9/96	
Yarmouth	410366	J. Dunphv	Highland St	R. Bell Jr.	Site Inspect - RAM	Residential	AST	12/29/95	
Yarmouth	401247	Star Enterprises	Main St	N/A	STM Inspect	Commercial	UST	11/28/95	
Yarmouth	401247	Star Enterprise	Main Street	M. Bingham	Waivr Com/RAM			6/12/95	
Yarmouth	410272	Town of Yarmouth	Main Street		STM Inspection			5/22/95	
Yarmouth	410274	Town of Yarmouth	Town Brook Rd	M. Pierdinock	rao			3/15/95	
Yarmouth	401327	Mobil Oil	Main St	H. Resca	NRS			12/6/94	
Yarmouth	400186	Deblois Oil	Fmr Deblois Oil	N/A	waiver			4/5/94	

DEP Waste Site Cleanup Audit and Enforcement Update

March 1997

Audit Findings for Dec. 1996

BWSC completed 16 audits in December 1996. Nine of those 16 audits did not require further field work. Seven audits found response actions lacked sufficient field work including:

1. A facility has manufactured cutlery, tools and specialty metal products for about 150 years. Test pits uncovered oil contaminated soils. Further assessments failed to identify the source or extent of the oil. The owner filed a Class A-2 RAO for a portion of the facility based on a Method 3 risk assessment. The BWSC auditor identified floor drains within the RAO boundary that had not been assessed. BWSC found the RAO violated provisions of the MCP that require assessment and elimination of potential sources. (Buckland, 1-0365, December 6, 1996).
2. Four tap water samples collected by BWSC at a former gasoline station now used for auto repairs exceeded drinking water standards. BWSC auditors instructed management to post signs in the bathrooms that the water is not potable (bottle water had already been provided). The audit finding requires the owner to assess whether an IRA should be conducted and to Tier Classify the site (Dedham, 3-1022, December 13, 1996).
3. The Tier Classification for a gasoline station failed to identify that the site was located within the mapped Zone II of a public water supply. (Barnstable, 4-0740, December 13, 1996).
4. Paints and solvents had been stored near a dry well in the basement of a paint store. A 1989 assessment report suggested that soil and groundwater contamination detected on-site had migrated from another property. In December 1993 DEP approved a RAM to remove USTs and the dry well on-site. Although the USTs were removed, due to a dispute between the PRP and the LSP, the dry well was not removed. In 1995, the owner hired another LSP. The new LSP removed the dry well as a LRA and prepared DPS submittal in 1996. BWSC found that the DPS had not been sufficiently supported and that DPS submittal was inappropriate because the PRP was not in compliance with the RAM reporting requirements of the MCP. BWSC also issued a Notice of Noncompliance to the first LSP for failing to provide notice that he was no longer the LSP of record. (Holyoke, 1-0676, December 19, 1996).
5. A number of transformer fires occurred at a site used since 1975 to store and dismantle heavy machinery and equipment. Movement of soil spread PCBs around the site. In November 1994 the owner began an LRA (continued as a RAM) to remove PCB contaminated soils. BWSC auditors found that the PCB-contaminated soil piles were still present during a fly-over and inspections in June and July of 1996. BWSC sampled an uncovered soil pile along a path used as a dirt bike track and found oil at a concentration of 1047 ppm. BWSC required: (a) the removal of PCB contaminated soils within 30 days, (b) additional soil assessment and (c) revision of the Tier Classification. (Chicopee, 1-10691, December 24, 1996).
6. A transportation company located in a mixed commercial/residential area removed a fuel oil UST and 54 tons of contaminated soil. During the removal, the contractor observed holes in the UST and a sheen of oil on the groundwater. The company filed a Class A-2 RAO based on soil samples from the bottom of the excavation. BWSC found that monitoring wells should be installed to allow for collection of groundwater samples and assessment of historic groundwater impacts. (Hopkinton, 2-10624, December 27, 1996).

7. An owner removed four abandoned #6 fuel oil tanks and found 1 foot of free-phase oil on the groundwater table at a depth of 17-19 feet. The Class C RAO opinion concluded that a substantial hazard did not exist due to the low mobility and volatility of the fuel oil. BWSC found that the temporary solution should include feasible measures to achieve a permanent solution such as bailing of the free product from the monitoring wells. (Lawrence, 3-12116, December 30, 1996).
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Last Updated: April 4, 1997

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Audit and Enforcement Update

April 1997

Audit Findings for January 1997

BWSC completed 15 audits in January 1997. Ten of those 15 audits did not require further field work. Five audits found response actions lacked sufficient field work including:

1. Groundwater immediately downgradient from a circuitboard manufacturing facility contains high acetone and chlorinated solvent concentrations. A preliminary assessment concluded that the facility was not the source of those chemicals. BWSC found that assessment inadequate since: (1) the site history lacked information regarding use of solvents prior to 1986, (2) the facility uses acetone and (3) a subsurface investigation had not been conducted at the facility. BWSC noted that an RAO could not be filed based on available information so the MCP requires that a Tier Classification be filed (Waltham, 3-13385, January 14, 1997).
2. Groundwater at an electroplating facility contains trichloroethene (TCE) and petroleum compounds above GW-1 standards and cyanide above GW-3 standards. A pond classified as a Class A waterbody abuts the facility and a private well exists within 500 feet of the release. The PRP connected the abutter to the city water supply. BWSC received a Class A-2 RAO for the facility that failed to document: (1) the closure of the well and (2) the elimination of risk posed to the pond and wetland areas. A notice of noncompliance required revision of the RAO or submission of a Tier Classification. (Fall River, 4-10963, January 15, 1997).
3. Neither the past nor current owner filed a Tier II extension for a former waiver site (Walpole, 3-2053, January 17, 1997).
4. Approximately 300 gallons of electric cable oil leaked from an underground pipe. An IRA recovered 150 gallons of the oil. The utility company installed a soil boring during the audit and found an oil layer greater than 1 inch thick on the groundwater. The utility retracted the Class A-2 RAO filed for the release. (South Boston, 3-12275, January 17, 1997).
5. An emergency power generator released six hundred gallons of diesel fuel into catch basins leading into a wetland. Absorbents pads and booms collected oil from the surface of the wetland. The owner excavated contaminated soil and installed a gravel-filled trench to recover additional oil. The residual level of oil on the water table varied each season. BWSC found that an additional year of groundwater monitoring should be performed in order to better establish the extent of contamination. (Tewksbury, 3-12884, January 28, 1997).

Audit Findings for February 1997

LSP opinions passed with flying colors this month, the ten opinions audited all had sufficient field work.

Three of those audits found no violations or deficiencies existed. The only audit where DEP request additional field work involved the following waiver completion statement:

(1) An historic mill building had gradually been converted into a manufacturing and research facility for household consumer products such as soaps, detergents, shampoos and household cleaners. BWSC found the waiver completion statement to be deficient since: (1) confirmatory samples should have been taken to confirm the that concentrations of lead and 4-isopropyltoulene in groundwater decreased after soil removal, (2) the procedure to calculate a Method 2 Standard needed to use the p50% odor recognition thresholdp and (3) soil containing #6 fuel oil had not been sufficiently tested. (Easthampton, 1-0415, February 28, 1997).

Consent Order

BWSC fined a property owner \$26,000 for: (1) shutting down a groundwater recovery system installed as an IRA without BWSC approval, (2) failing to remove soil piles within 120 days, (3) ranking a site with an imminent hazard a Tier II site, (4) conducting IRAs without BWSC approval. (Stow, 2-10279 & 2-10347, February 18, 1997).

Soil Disposal Options (Maria Pinuad, L.S.P., DEP-SERO)

LSPs should evaluate various options for soil disposal prior to rendering an opinion for a Bill of Lading that allows disposal of soils. Soils should only go to landfills when options such as asphalt batching are not available.

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Last Updated: September 24, 1997

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The following article appeared in the April 1997 LSPA Newsletter.

DEP Responds

By James C. Colman, Assistant Commissioner for the Bureau of Waste Site Cleanup

I wish to respond to the [February 1997 "President's Message"](#), which concerned DEP's position on the use of the draft VPH/EPH proposals. In this column, President Nancy Roberts maintains that DEP has retroactively applied the new requirements and has arbitrarily overridden promulgated Method 1 standards.

First, I wish to point out that this column confused two separate issues: (1) use of the VPH/EPH methods and risk characterization approach before the effective date of the related MCP changes; and (2) inappropriate past use of "toxicity weighted" data. I want to take this opportunity to address both concerns.

(1) Because traditional "BTEX only" characterization methods for gasoline contaminated sites underestimate risks posed by residual hydrocarbons, I indicated in a letter to Licensed Site Professionals and Interested Parties (dated January 15, 1997) that DEP reserves the right to require re-evaluation of closed sites using the VPH/EPH approach in those few cases "where compelling health or environmental concerns are evident, (e.g., active drinking water well impacted by gasoline)." DEP expects the number of closed sites where such concerns exist to be very limited and plans to work with parties in these cases to identify a reasonable plan for conducting the additional testing.

Furthermore, DEP will not consider LSPs to be in violation of the MCP for having failed to use the VPH approach on previously closed sites. Clearly, DEP has a responsibility to ensure that, where a release has affected water currently used for drinking, the risks be adequately characterized. I believe our position strikes a

necessary balance between DEP's mandate to protect public health and our commitment to provide people performing cleanups with a reasonable degree of certainty with respect to cleanup requirements.

(2) Regarding President Roberts' second concern, DEP is not seeking to "override" a promulgated (toxicity weighted) Method 1 standard. Toxicity weighting was a proposed approach that was never formally adopted by DEP. The May 1996 Issues Paper published by DEP discussed the shortcomings of toxicity weighting, and made it clear that the concept was being abandoned. In previous documents in 1994 and 1995, toxicity weighting was always identified as a proposed concept, not a recommendation. For example, in the cover letter to the draft analytical VPH/EPH methods in August, 1995, toxicity weighting was described as "an area and concept still under discussion within the agency."

Although a footnote was added to the MCP Method 1 standards in February 1995, referencing the optional use of a "toxicity weighted" TPH value, this was provided as a placeholder for any finalized approach which incorporated some kind of toxicity weighting. DEP concedes that the wording of this footnote might have created some confusion. However, it is not clear how LSPs could have continued to be misinformed on this issue, given the language in the subsequently issued draft analytical methods and Issues Paper, and that the reference to "toxicity weighted" was deleted from the footnote in the April 1996 MCP revisions. Frankly, DEP expects that parties electing to use a draft approach have taken the time to read and understand all available information on its use, limitations, and status, and have not simply relied upon a footnote in the MCP.

As with any new initiative of the scope of the VPH/EPH approach, there has been some degree of confusion surrounding its development. In hindsight, additional education and outreach by DEP would have been desirable. As we go forward toward finalizing the MCP VPH/EPH changes, DEP will provide training and guidance to LSPs and DEP staff to facilitate the implementation of the new methods and approach. The implementation schedule is as follows:

- MCP revisions will be published in the Massachusetts Register on or around May 16, 1997. **The VPH/EPH related Reportable Concentrations and cleanup standards will not become effective, however, until at least three months after the publication of the changes (mid-August or later).**
- In May 1997, DEP will conduct [a series of training seminars](#) for LSPs on the use of the VPH/EPH methods and approach.
- The analytical methods and guidance on the application of the approach will be finalized before the effective date of the VPH/EPH changes.

I truly appreciate that the application of the new VPH/EPH approach is of great interest to LSPs and that more questions and issues will probably arise as we move forward. I encourage you to work with us in identifying issues and providing comments on the draft guidance as we implement

this approach, which substantially advances the characterization of petroleum releases.

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Last Updated: April 4, 1997

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Audit and Enforcement Update

July 1997

The Department completed twenty one (22) audits in July 1997. Fifteen (15) of those 22 audits did not require further field work. Seven (7) audits found response actions lacked sufficient field work. Some of the July audits include:

1. An audit of a Downgradient Property Status submittal filed for a former gasoline station did not identify any deficiencies or violations. (Yarmouth, 4-6032, July 17, 1997).
2. The Department issued a Notice of Noncompliance to an owner of a former gasoline and automotive service station who failed to adequately assess groundwater conditions at the disposal site prior to filing a Response Action Outcome. An audit of response actions revealed that the extent of contamination had not been fully defined in groundwater at the site. Additional monitoring wells and sampling should be performed and the new data incorporated in an amended Risk Characterization. (Lincoln, 3-13684, JULY 1, 1997).
3. The Department issued an Interim Deadline letter to an owner who submitted a Notification Retraction in violation of the Massachusetts Contingency Plan. Department personnel had observed both a release of oil to the soil and sheens in nearby catchbasins. The Department had issued a Notice of Responsibility/Request for Information requesting that a Release Notification Form be submitted and the observed releases assessed. In response, the owner of the property submitted additional information, and subsequently a Notification Retraction. An audit of the information determined that the Notification Retraction was not supported by the documentation provided and that the release needed to be addressed. The Department determined the Notification Retraction to be void and has reestablished the site's original regulatory deadlines. (Beverly, 3-14836, July 24, 1997).

Consent Order

1. The Department negotiated an Administrative Consent Order with Penalty (ACOP) with a petroleum product distributor company for failure to timely notify of a release requiring a two hour notification and for initiating an Immediate Response Action (IRA) without approval. The company maintains that an inventory performed concluded that the quantity released to be less than the reportable quantity. However, according to the Department, the impacts of the release and the quantity of remediation waste generated during the cleanup indicated that over 10 gallons of gasoline were released. The Department assessed a civil administrative penalty of \$8,000. (Pittsfield, ACOP-WE-97-3009, July 23, 1997).
2. The Department negotiated an Administrative Consent Order with Penalty (ACOP) with a corporation for failure to timely notify of a release requiring a 120 day notification and for storing remediation waste for more than 120 days of initial excavation. The Department assessed a civil

administrative penalty of \$1,500. The ACOP also contained Interim Deadlines for the removal of the soil piles, completion of Imminent Hazard evaluation and Phase I Report. (Chicopee, ACOP-WE-97-3006, July 10, 1997).

FOR THE RECORD...

The June 1997 Audit Findings were under-reported. The Department completed twenty eight (28) audits in June 1997. Twenty (20) of those 28 audits did not require further field work. Eight (8) audits found response actions lacked sufficient field work.

Helpful Audit Hint by Thomas M. Potter, Auditor

Screening of Activity and Use Limitation (AUL) submittals by DEP staff has revealed that several LSPs may be interpreting the public involvement requirements for notification of AULs to local officials incorrectly. 310 CMR 40.01403(7)(a) requires that a copy of the recorded and/or registered Activity and Use Limitation (the Notice, and all of its associated attachments) must be provided to the Chief Municipal Officer, the Board of Health, the Zoning Official, and the Building Code Enforcement Official of the community(ies) in which the property subject to the AUL is located.

A letter of notice of the availability of the AUL to local officials is **not** enough to meet this requirement. Furthermore, the AUL should be written clearly so that those individuals receiving a copy can understand the nature of the limitations or restriction without needing to review the complete file at DEP.

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Last Updated: September 18, 1997

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Audit and Enforcement Update

August 1997

The Department completed fourteen (14) audits in August 1997. Ten (10) of those 14 audits did not require further field work. Four (4) audits found response actions lacked sufficient field work. Some of the August audits include:

1. An audit of an Immediate Response Action and a Response Action Outcome for a property used as a quarry and asphalt manufacturing operation did not encounter violations or significant deficiencies. An above ground #2 oil storage tank failed causing a release of approximately 10,000 gallons of product. The tank was surrounded by an earthen dike which limited the lateral extent of the release, but the bottom of the containment area was unlined allowing the oil to migrate into underlying soil and bedrock. A total of 960 tons of contaminated soils were removed and disposed off-site and 200 cubic yards of crushed contaminated bedrock were processed into asphalt. The application of an Activity and Use Limitation would eliminate the potential for future exposure to the remaining contaminated soils. Replacement tanks are now equipped with steel containment at greater than 110% of existing capacity to prevent similar releases from occurring. (Deerfield, 1-11500 August 8, 1997).
2. Following an audit of a Licensed Site Professional (LSP) Evaluation Opinion, the Department issued a Notice of Noncompliance to an owner of a facility which held an Interim License under the RCRA Authorized State Hazardous Waste Program. The LSP Evaluation Opinion indicates that the site is "adequately regulated by the Massachusetts Department of Environmental Protection's Bureau of Waste Prevention". However, the holding of an Interim License does not meet the "Adequately Regulated" requirements under the MCP. Therefore, the site must be tier classified and, if applicable, a Tier I permit application must be submitted. (Lowell, 3-0601, August 7, 1997).
3. An audit of a Response Action Outcome for an area previously listed by the Department as a Location to be Investigated where a small abandoned landfill existed found noncompliance with the MCP. However, further actions were not required since the Department determined that, based on the information reviewed during the audit, the location is not a site where a release of oil and/or hazardous material has occurred which is subject to notification requirements under the MCP. (Norton, 4-0763, August 14, 1997).

Helpful Audit Hint

by Thomas M. Potter, Auditor

Recent audits of sites where there is a significant likelihood for private water supplies to be present (i.e.: rural communities) have noted that the actions performed by LSPs to locate such supplies are often not of sufficient scope, detail, or level of effort. This lack of due diligence has resulted in the need for further investigation at many sites. The Department recommends that, as a minimum, the following be performed:

- A thorough field reconnaissance and/or door to door survey for private water supply locations both on and within 500 feet of the disposal site.
 - Private well locations could be confirmed through consultations with appropriate local water suppliers, Boards of Health, Departments of Public Works, and other local officials in the community. When possible, more than one official and/or Department should be contacted.
 - If the area is served by a public water supply, a comparison of water billing records from the public water supply system to property tax records may be the most effective way to confirm that all nearby properties are served by the public water supply system.
 - Private water supply evaluations performed early in a site investigation (i.e.: historical reports prepared months or years earlier) should be updated or revisited prior to the submittal of an LSP Opinion.
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Last Updated: October 20, 1997

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Audit and Enforcement Update

September 1997

The Department completed sixteen (16) audits in September 1997. Eleven (11) of those audits did not require further field work. Five (5) audits found response actions lacked sufficient field work. Some of the September audits include:

1. The Department issued a Notice of Noncompliance to an owner of an automotive repair facility following an audit of a Response Action Outcome. Soils contaminated with Petroleum Hydrocarbons removed from the site were transported to an out-of-state facility without the supervision of a Licensed Site Professional and without a Bill of Lading or Hazardous Waste Manifest. However, because the requirements of the receiving facility were met and because the audit confirmed that the site has achieved a level of No Significant Risk, the Department did not require additional follow up at the conclusion of the audit. (Mansfield, 4-10668, September 18, 1997).
2. The Department issued a Notice of Noncompliance to the operator of an industrial facility following an audit of a Class A-2 Response Action Outcome (RAO). The risk characterization quantified exposure associated with the site employing Method 3 Risk Characterization. However, assumptions were made regarding reduced exposure potentials and limited future site uses and activities which require the implementation of an Activity and Use Limitation (AUL). An AUL was not implemented. Therefore, the Department required that a revised Class A-3 RAO and Method 3 Risk Characterization be submitted with a certified copy of an AUL which clearly identifies the restrictions for future site uses and activities which have not been evaluated and may pose significant risk of harm to future receptors at the site. (Cambridge, 3-2241, September 16, 1997).
3. The Department issued a Notice of Noncompliance to the operator of an industrial facility following an audit of a Class A-3 Response Action Outcome (RAO). The Department determined that sufficient assessment had not been performed to define the extent of oil and hazardous materials contamination at the site. In addition, a Method 1 Risk Characterization was employed to characterize the risk at the site. However, contaminated media other than soil and groundwater was also encountered at the site which precluded the exclusive use of Method 1 to characterize risk posed by the site. The Department requested that the RAO be revised or retracted within a specified time. (Southbridge, 2-0712, September 22, 1997).

Consent Orders

1. The Department entered into an Administrative Consent Order with Penalty with a heating oil delivery company for Failure to Notify of a release to a residential basement and for conducting an Immediate Response Action without Department approval. Heating oil was mistakenly delivered to an abandoned above ground storage tank in the basement of a residence that had converted to natural gas. The accidental filling resulted in a release of 10-20 gallons of heating oil to the

basement floor. This condition triggered a two hour notification requirement. However, the Department was notified of the release by the Fire Department several hours after it happened when the cleanup was near completion. The LSP opined that the release was likely contained within the interior of the building, and therefore did not meet the notification criteria. The Department concluded that standing water from groundwater infiltration and the existence of a sump pump was evidence that the the basement was not tight. In addition, strong fuel odors caused the relocation of the residents from the second floor apartment. A penalty of \$3,000 was assessed for the violations described. In addition, a training program for all company personnel who may need to identify and report oil spills subject to the MCP was required. (Clinton, ACOP-CE-97-3004, September 30, 1997).

2. The Department entered into an Administrative Consent Order with Penalty with a manufacturer for failure to notify of a release of approximately 30-40 gallons of hydrofluoric acid which triggered a two hour notification requirement. The manufacturer maintained its owned "Haz Mat Team" which proceeded to cleanup the release with assistance from the Fire Department. Approximately 300 people were evacuated from the manufacturers' buildings due to a cloud of acid fumes. The Department received a "courtesy" call, via a telephone voice mail message left on the telephone of a Department employee who was not with the Emergency Response Section. The manufacturer indicated that the small release had been cleaned-up. A penalty of \$12,000 was assessed for the violations described. (Grafton, ACOP-CE-97-3003, September 30, 1997).

Helpful Audit Hint

by the NERO Audit Team

RAOs Requiring AULs. The Department continues to receive Class A-2 and Class B-1 Response Action Outcome (RAO) Statements accompanied by Method 3 Risk Characterizations which rely on reduced exposure potentials and limited future site uses and activities. For example, residential use of a disposal site is not evaluated by the risk characterization as a future foreseeable use. These particular submittals do not comply with the MCP and the performance standards for RAOs, however, because a level of No Significant Risk has not been achieved for unrestricted site activities and uses and an Activity and Use Limitation has not been implemented, as required. **Pursuant to [310 CMR 40.1012\(2\)\(a\)\(2\)](#)**, "Activity and Use Limitations (AULs) shall be required at all disposal sites or portions of disposal sites for which a Response Action Outcome and the risk characterization used to support the RAO are based upon the restriction or limitation of Site Activities and Uses to achieve or maintain a level of No Significant Risk, including any disposal site or portion of a disposal site where a Method 3 Risk Characterization relies on reduced exposure potential due to the assumption of limited site use."

Pursuant to [310 CMR 40.1012\(2\)\(b\)](#), AULs are also required "...when a Response Action Outcome (RAO) relies upon Exposure Pathway elimination to prevent exposure to levels of oil and/or hazardous material that would otherwise pose a significant risk of harm to health, safety, public welfare, or the environment." This approach is common at disposal sites where soil contamination is located beneath existing pavement, and a Method 3 Risk Characterization assumes that the exposure pathway is not complete due to the presence of the pavement. In such cases, an AUL which obligates the maintenance of the pavement is necessary to ensure that the exposure pathway remains incomplete.

The fundamental message here is this: If a Method 3 Risk Characterization cannot demonstrate the achievement of a level of No Significant Risk for all reasonably foreseeable site activities and uses at a disposal site (including but not limited to residential uses and activities associated with a child) and remedial response actions are not undertaken, an AUL is required to support an appropriate Class A-3, Class A-4, Class B-2 or Class B-3 RAO Statement for the disposal site. The AUL must adequately identify all assumptions of the risk characterization and/or restrict site activities and uses which were not evaluated by the risk characterization and may pose a future significant risk to human health, public welfare, safety, and the environment.

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Last Updated: October 29, 1997

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Audit and Enforcement Update

October 1997

The Department completed thirteen (13) audits in October 1997. Nine (9) of those audits did not require further field work. Four (4) audits found response actions lacked sufficient field work. Some of the October audits include:

1. An audit of a Response Action Outcome for a site located in a portion of a property used as a food distribution center and warehouse encountered a number of violations and deficiencies. Three underground fuel oil storage tanks were removed and conditions indicated a release of petroleum to surrounding soils and groundwater. The Department approved as an Immediate Response Action the excavation of contaminated soils and the removal of contaminated groundwater. Although eight violations were identified, none required further corrective action. However, the deficiencies encountered required the collection and evaluation of additional field data to further define the nature and extent of contamination and to clearly identify the area restricted by the Activity and Use Limitation. (New Bedford, 4-11751, October 16, 1997).
2. The Department issued a Notice of Noncompliance to an owner following an audit of a Phase II - Comprehensive Site Assessment and a Response Action Outcome (RAO) for a site located in a portion of a property used as an automobile dealership and service facility. The audit encountered violations indicating that uncontrolled sources of oil and/or hazardous material discharging to the environment have not been eliminated or controlled prior to filing the RAO and Activity and Use Limitation (AUL). An unpermitted Class V injection well allows the discharge of pollutants to the subsurface in the area restricted by the AUL. Floor drains are connected to an oil/water separator which discharges to a leaching field. The Department requested that the oil/water separator, leach field and associated piping be assessed and closed or removed in accordance with the Massachusetts Closure Requirements for Shallow Injection Wells. In addition, deficiencies were encountered which required the collection and evaluation of additional field data and the revision of the risk characterization and the Phase II Report incorporating the results of the field investigation. (Pittsfield, 1-0834, October 7, 1997).
3. An audit of a Response Action Outcome for a site located in a residential area encountered violations and deficiencies. A pile of used tires burned to the ground impacting soils and groundwater. Approximately 242 tons of tires and burned tire material were removed from the site and incinerated. Following the removal, confirmatory soil sampling indicated that contaminants were below the applicable Risk Characterization Method 1 standards. However, the minimum detection limit used in the groundwater analysis for several contaminants were greater than the applicable Risk Characterization Method 1 groundwater standard. In addition, groundwater at the site was incorrectly classified as GW-3. Groundwater located greater than 500 feet from a public water system distribution pipeline should be classified as GW-1. The residences in the area are serviced by private water supply wells. During the audit, the Department performed groundwater sampling and analysis which confirmed GW-1 standards have been met. Therefore, no additional actions were required. (Monson, 1-10314, October 3, 1997)

Consent Order

The Department entered into an Administrative Consent Order with Penalty with a heating oil delivery company for Failure to Notify of a release requiring a 2-hour notification, failure to communicate the need to perform an Immediate Response Action (IRA), failure to submit a Release Notification Form within 60 days and failure to submit an IRA Plan within 60 days. At the time of delivery, approximately 20 gallons of heating oil were released to the ground through an opening created by removing the vent pipe during delivery. A penalty of \$2,750 was assessed for the violations described. In addition, a training program for all company personnel who may need to identify and report oil spills subject to the MCP was required. (Clinton, ACOP-CE-97-9014-C3, October 14, 1997).

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Last Updated: December 2, 1997

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Audit and Enforcement Update

November 1997

The Department completed fourteen (14) audits in November 1997. Nine (9) of those audits did not require further field work. Five (5) audits found response actions lacked sufficient field work. Some of the November audits include:

1. The Department issued a Notice of Noncompliance to an owner following an audit of a Response Action Outcome (RAO) which relied on an Activity and Use Limitation (AUL) to maintain a level of No Significant Risk. During the audit inspection, the Department observed that a trench had been excavated to a depth of six feet as part of utility repair work in the area of the AUL. The AUL expressly prohibited excavation below a depth of four feet. The Licensed Site Professional (LSP) was not informed of this activity, the LSP was not present during excavation and an LSP Opinion was not submitted to the Department prior to excavation activities as required. (West Springfield, 1-11011, November 17, 1997).
2. The Department issued a Notice of Noncompliance to an owner of a service station following an audit of a Response Action Outcome. Several violations and deficiencies were identified during the audit including, failure to demonstrate that a level of No Significant Risk has been achieved, performing response actions outside the scope of Department approvals, excessive soil removal, installation of an unapproved treatment system, failure to control remedial air emissions to the atmosphere, violation of Response Action Performance Standards due to lack of adequate characterization of the site. The Department required appropriate assessment and the filing of either a revised RAO or a Tier Classification Submittal. (Brockton, 4-10684, November 6, 1997).
3. An audit of a Response Action Outcome filed for a gasoline station site encountered deficiencies that need correction. Soil analytical data collected from an underground storage tank (UST) source areas in 1989 was eliminated from exposure point concentration calculations and replaced by soil data collected in 1996. The 1989 data exceeded Risk Characterization Method 1 S-1 standards. However, the 1996 samples were not collected proximal to the UST source areas being evaluated. The current exposure point concentrations need to be established to confirm and/or support the RAO or a revised RAO or a Tier Classification Submittal will need to be filed. (Springfield, 1-0662, November 5, 1997).

Consent Order

The Department entered into an Administrative Consent Order with Penalty with a trucking company from New Jersey for eight violations of Chapter 21E. Although response actions were conducted as a result of a sudden release of diesel fuel from a truck accident in Auburn, the trucking company transported remedial waste without a Bill of Lading, failed to store remedial waste in a secure manner, and stored remedial waste at their Massachusetts facility in Shrewsbury for more than 120 days. The trucking company also failed to submit a release

notification form, Immediate Response Action plan and status reports. In addition, the trucking company failed to respond to a Notice of Noncompliance, and a Request for Information issued by the Department. The order required payment of a \$12,000 penalty, and implementation of a training program that will include approximately 200 truck drivers who travel through out Massachusetts. (Shrewsbury, ACOP-CE-97-3006, November 12, 1997).

Helpful Audit Hint

by the NERO Audit Team

Presenting Exposure Point Concentration Data Providing adequate and clear information as to how Exposure Point Concentrations are determined is a critical part of a Response Action Outcome submittal. In reviewing these submittals, however, Department staff frequently find that information describing how the EPCs were derived is absent, incomplete or not documented in a clear manner. In many cases, a conclusion is provided that the EPCs "met the applicable No Significant Risk standards", but there is no detail provided as to which sample(s) comprise the EPC, how the Exposure Point was delineated or why certain samples were included or excluded from the calculated EPC(s). 310 CMR 40.40.0926(1) requires that, "For each oil and/or hazardous material in each medium at each Exposure Point, an Exposure Point Concentration shall be identified and documented.

Many times when DEP requests further information as to how the EPCs were derived, the LSP readily provides the basis for the EPCs. Often times, it is not a matter of the wrong conclusions being reached, but rather the information critical to supporting the Response Action Outcome is not presented.

This audit hint focuses on providing adequate detail, both in the report narrative and in corresponding tables, on how the EPCs were determined. Providing this information in a clear and accessible manner which supports a finding of No Significant Risk will reduce the likelihood that DEP will target a Response Action Outcome submittal for an in-depth audit.

Information Which Should Be Provided in the Narrative: Even for the simplest of cases, the narrative should describe how each Exposure Point was delineated, the area that represent the Exposure Point(s) and sample data used to calculate each EPC. (Frequently, information is lacking on/errors are made in Exposure Point delineation. See MCP Q&A, Vol. 4 No. 1, May 1997 and the Guidance for Disposal Site Risk Characterization, Sections 5.8 and 7.3 for guidance on Exposure Points.) EPCs should be calculated for the area affected by the release and information should identify which samples are from the area of the release and which represent "background". Background samples should not be averaged into the EPC. A site map should be provided which indicates sample locations.

The narrative should explain the method used to determine the EPC, e.g., use of averaging, maximum values, modeling, percentiles, or inclusion of Non-Detects (by using 1/2 the method detection limit). The narrative should also provide a discussion of any Hot Spots, identifying which sample data was used to calculate the Hot Spot. Other information used to delineate EPCs such as field screening results and visual and olfactory observations should also be discussed. All of this information should be summarized in the narrative of the Risk Characterization section of the Response Action Outcome submittal and "tell the story" of how the EPCs were derived.

Recommended Summary Table Format DEP recommends that all Response Action Submittals provide tables that correspond with the narrative of the Risk Characterization and summarize the EPCs. Many LSP/consulting firms use such tables. The most effective summary tables include the following information/headings:

- * sample media (soil, groundwater or air)
- * the number of samples used to calculate each EPC
- * the concentration of each sample

- * the range of concentrations, when averaged
- * sample depth
- * reference to site map that shows the sample locations
- * the applicable No Significant Risk standard
- * identify any samples that were excluded from the EPC and footnote the Risk Characterization of the report that provides rationale for excluding them

NOTE - If you are interested in having a specific topic addressed in this column, or to provide suggestions for changes in format or content, please contact Maria Pinaud at (617) 292-5909, FAX (617) 292-5530, or via E-Mail at Maria.Pinaud@state.ma.us

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Last Updated: January 12, 1998

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Audit and Enforcement Update

December 1997

The Department completed nineteen (19) audits in December 1997. Fifteen (15) of those audits did not require further field work. Four (4) audits found response actions lacked sufficient field work. Some of the December audits include:

1. Following an audit of a Downgradient Property Status (DPS) submittal for a property formerly used as a gasoline station located in a commercial area of downtown Northampton, the Department found that the submittal complied with all applicable requirements. However, additional actions were required to evaluate the potential for the groundwater contaminant plume to affect indoor air quality. The Department required that a management plan for the subject property be implemented to include a soil gas evaluation. In addition, in an attempt to locate the source of contamination in the area, the Department requested that the subject DPS site and five other nearby sites (3 DPSs and 2 Tier II sites) coordinate a groundwater survey and sampling effort. (Northampton, 1-0600, December 11, 1997,)
2. The Department issued a Notice of Non-Compliance following an audit of a Response Action Outcome (RAO) submittal to a former operator of a gasoline station located along a service area for the Massachusetts Turnpike. A release of gasoline and diesel from a leaking underground storage tank (UST) system was discovered which impacted soil and groundwater at the site. All USTs were later replaced and contaminated soil excavated. Following an assessment of the site, the RAO was submitted based on a determination of no significant risk supported by a Methods 3 Risk Characterization. However, the Department determined that the submittal failed to demonstrate that a level of no significant risk to environmental receptors (biota living in sediments in the nearby unnamed beaver pond were not considered) had been achieved. The full extent of contamination had not been defined and all existing migration pathways had not been characterized. The Department requested that an Audit Follow-up Plan be prepared, the RAO be retracted and a Tier II Classification Extension be submitted. (Blandford, 1-0796, December 15, 1997).

Consent Order

The Department entered into an Administrative Consent Order with Penalty (ACOP) with the City of Leominster Public Schools concerning a fuel oil release at the Priest Street Elementary School. Approximately 8,000-9,000 gallons of heating oil from an underground storage tank were estimated to have been released to soils, groundwater and a nearby wetland. This location had been listed on the 1997 List of Tier I Sites by default for Failing to Meet Deadlines. Numerous violations were identified for three separate release tracking numbers including failure to notify, failure to conduct an Immediate Response Action and failure to submit several reports. Some of the violations were compounded by a failure to respond to a Notice of Noncompliance issued by the Department. The ACOP requires cleanup actions to occur in an accelerated manner, submittal of a Tier I permit application and payment of a

\$12,500 penalty. In addition, the ACOP requires payment of \$10,400 in past due annual compliance fees. (Leominister, ACOP - , December 31, 1997).

Summary of Random Audit Review - Privatized Program

(as an indication of overall compliance with the program's requirements):

Audit Type	Total	Adequate (No Further Work Required)	Further Field Work Necessary	Further Work Confirmed LSP Opinion	Modification of LSP Opinion (% of Total)	Rejection of LSP Opinion (% of Total)
Random	189	73%	27%	66%	5%	3%

189 random audits were reviewed with the following results:

- 138 were deemed adequate and did not require further field work (a 73% initial compliance rate),
- 51 cases resulted in need of further field work (27%).
- Of those, 44 cases have completed the additional field work with these results:
 - 10 cases resulted in modification of the LSP opinion (5%),
 - 5 cases resulted in rejection of the LSP opinion (3%),
 - 29 cases confirmed the original LSP opinion (66% of the cases where additional field work was completed).

NOTE - If you are interested in having a specific topic addressed in this column, or to provide suggestions for changes in format or content, please contact Maria Pinaud at phone: (617) 292-5909, FAX: (617) 292-5530, or via E-Mail: Maria.Pinaud@state.ma.us

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